GEISINGER MEMORIAL HOSPITAL
DANVILLE, PA.

The MODERN HOSPITAL

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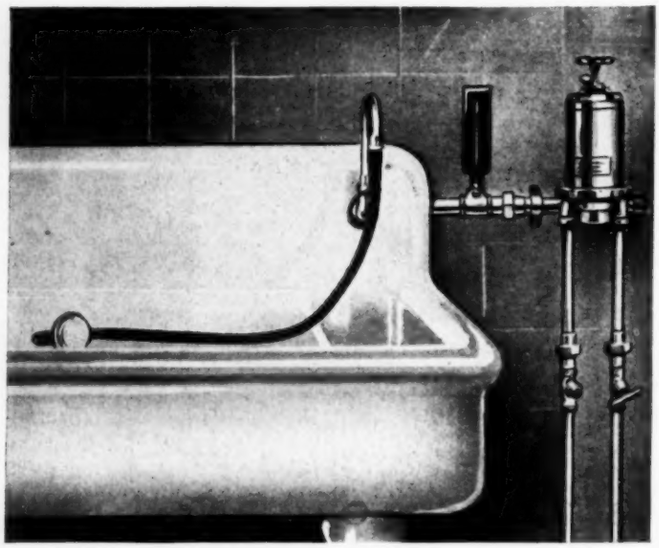

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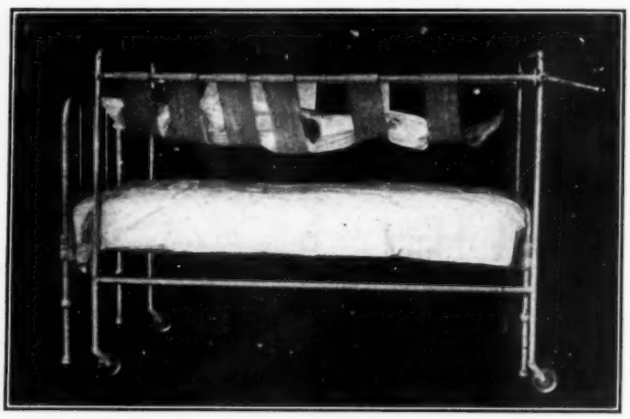

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to their Medical, Surgical, and Nursing Services

Vol. V *September, 1915* No. 3

THE GEORGE F. GEISINGER MEMORIAL HOSPITAL, DANVILLE, PA.

Five Principal Buildings, Carefully Designed, Substantially Constructed and Liberally Endowed, Give Promise of a Most Effective Hospital Service—Donor's Instruction to Build the Best

By HAROLD L. FOSS, M. D., Rochester, Minn.

ON a hill overlooking the town of Danville, Pa., whence a view is obtained for several miles east and west along the beautiful Susquehanna Valley, is nearing completion a hospital which, for the beauty of its architecture, its scientific and modern arrangement and the completeness of its equipment, is destined to take a position in the front rank of modern American hospitals.

This splendid institution is the result of the munificence of Mrs. Abigail A. Geisinger, of Danville, who, in the autumn of a long and useful life, has caused to be erected the George F. Geisinger Memorial Hospital, the cornerstone of which was laid on the first of September, 1913.

It is now about three years since Mrs. Geisinger called together in the parlor of her Danville home three of her townsmen and unfolded to them a plan for building, as a gift to her town and as a memorial to her husband, a hospital. These men were W. M. McClure, Thos. J. Price and J. H. Brugler. Mr. Brugler became the architect of the new institution, and the other two the building committee. Dr. J. M. Baldy and Dr. H. L. Foss shortly after were called in as professional consultants. After many sketches had been submitted, a general scheme was decided upon and draftsmen set to work on the final plans. From Mrs. Geisinger, whose enthusiastic interest in the work has never for a moment relaxed, was received the broad general instruction, "Make my hospital right; make it the best."

A plot of thirteen acres on a hill overlooking the town was purchased and there have since been erected on this ground five buildings. These consist of a main hospital building, a nurses' home, a power house, a garage and a research building. The construction and general design of the units of the group are uniform throughout. The foundations are of reinforced concrete, while above the construction is of light Kittanning brick with trimmings of gray Ohio sandstone. The main building faces directly south and has a frontage of two hundred and forty feet. Its central portion is four stories in height, and the wings, extending east and west, are of two stories. Space has been provided for seventy beds, although ample provision has been made for an increase of the number to eighty-five. To the west of the main building stands the nurses' home, a two-story structure of some thirty rooms. North of the main building is located the power house, in the upper story of which is the laundry. To the north and east are the garage and stables and the research building.

The hospital stands upon a terrace and is approached by a broad flight of stone steps. The entrance to the administration wing is of colonial design and is guarded by eight massive Corinthian columns of gray sandstone, supplemented by corresponding pilasters, forming an imposing portico. Passing through the main entrance one finds oneself in a wide corridor with floor of tile and wainscoting of white Vermont marble; here on either side are located the main waiting room, the business office, the library, the office of the superintendent and the office of the chief nurse.

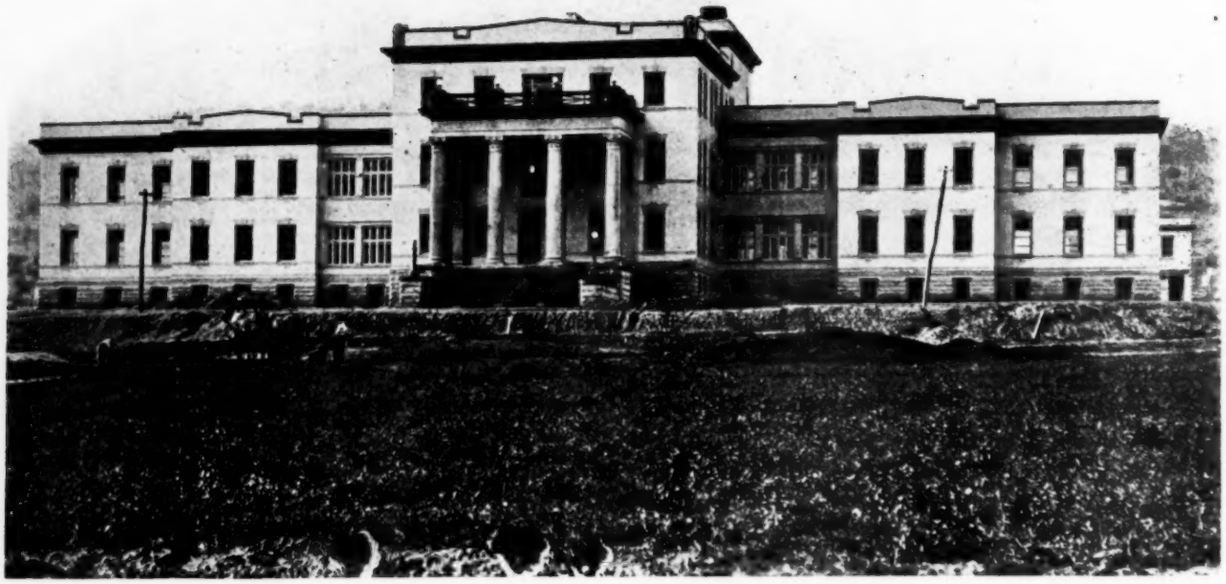

Fig. 1. George F. Geisinger Memorial Hospital, Danville, Pa. Main building.

Three of the rooms on the left side of the corridor are separated by folding doors so that they may be made one, creating an assembly room of about fifty by twenty feet. This has been planned with the idea of providing a suitable place for the holding of scientific meetings. The room is wired from a motor-generator in the basement so that direct current may be furnished for the operation of various projection apparatus.

Fig. 2. George F. Geisinger Memorial Hospital, Danville, Pa. Nurses' home.

A wide corridor extends through the building, east and west, for its entire length. At its ends are located the wards, four in all. A fifth ward for children is situated in a north wing. Between the administration building and the wings, on the east and west and on two floors, are to be found large sun rooms. These are enclosed in glass and in the winter are heated by steam. The entire south wing of the first floor is devoted to the administration department, but with the exception of this the first two floors are devoted to the housing of patients. There are five ward units, each consisting of a ward, a ward nurse's office, a diet kitchen, a bath room, and a service room. Each ward is arranged for eight beds, is of liberal dimensions and receives light and ventilation from three sides of the building through nine windows. Each ward office, though cut off from the ward by a sound-proof window, is so arranged that the nurse on duty has a complete view of the patients under her care at all times.

There are eighteen private rooms, several being arranged with private baths. A complete system of nurses' call signals has been installed by the Holtzer-Cabot Electric Co., and every bed in the hospital has its own button and number. Colored lights are used as signals and a pilot board in the head nurse's office in the administration wing indicates at all times the promptness, or lack of it, with which calls are answered by the nurses on duty. All the private rooms are wired for long-distance telephones.

The main building has a sub-basement, a basement, and, in the wings, a first and second floor. The central part of the building is carried up two more stories above the wings. On the third floor, in such a location that the odors of cooking are carried away, is the main kitchen. This is a large, well lighted and perfectly ventilated room,

Fig. 3. George F. Geisinger Memorial Hospital, Danville, Pa. General view.

equipped with the most modern apparatus for gas and steam cooking. On the same floor with the kitchen and within easy reach of it, is located the refrigerator, composed of three rooms and chilled with brine circulated from the power house. An automatic electric dumbwaiter connects the main kitchen with the floors below. On the third floor is also located the main dining room for the staff and the apartments of the superintendent.

The basement, or rather the semi-basement, its floor being but three feet below grade, contains some of the most interesting departments of the institution. Here are located the laboratories of pathology, the x-ray department, the accident room, the cystoscopic room, the hydrotherapeutic department, the plaster room, etc. All these departments have been planned with the greatest care and according to the most modern practice. The equipment throughout is complete. In the x-ray department the transformer, with its rectifying switch, is located in the sub-basement. The connecting wires are carried up through mica conduits to the floor above, where they supply current to the vertical and horizontal fluoroscopes, the stereoscopic tables, etc. The isolation of the transformer renders the operation of the apparatus practically noiseless and removes a rather objectionable feature of most x-ray installations. The walls of the department are covered with sheet lead placed beneath the plastering. The cystoscopic room is close at hand and wires lead to it from the main x-ray transformer to supply current in connection with the making of pylo-uretograms. In the group of rooms making up the x-ray department is a large and well ventilated dark room and a separate room for the examination and storage of plates. On the same floor with the departments just described is a lecture room fitted out with projection apparatus, charts, models, etc., where instruction will be given to pupil nurses. The laboratories are unusually spacious and well equipped for a hospital of the size. Provision has been made for the most advanced pathological and bacteriological work. In connection there is a department for photography and micro-photography.

On a level with the ground floor, but in a separate wing of the building, having its entrance without the main hospital, is situated an isolation department. Here can be isolated such contagious cases as may be discovered in the house.

Fig. 4. George F. Geisinger Memorial Hospital. Research building.

The receiving or accident room is situated on the ground floor opposite the ambulance entrance. The room is fully equipped for the prompt handling of accident cases and has its own sterilizing and operating outfit so as to be independent of the main operating room.

Occupying the entire south wing on the second floor is the operating suite, consisting of the main operating room, the sterilizing room, a wash room, a supply room, two anesthetizing rooms

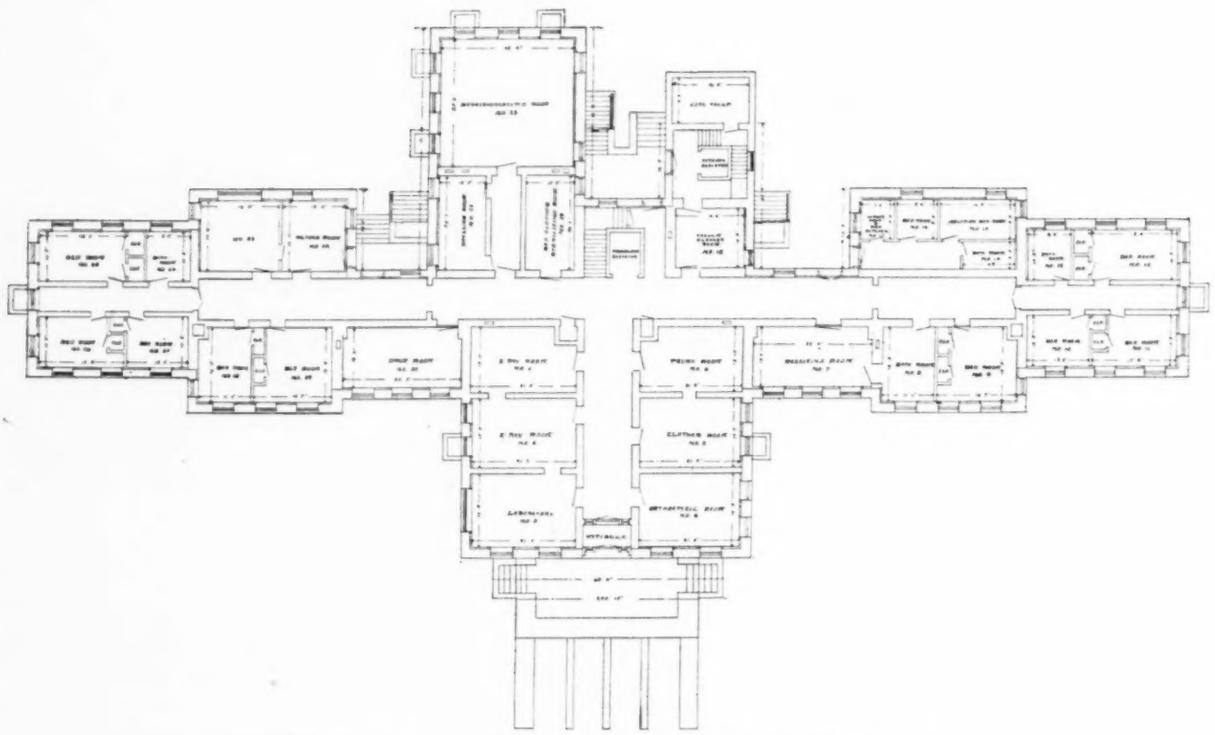

Fig. 5. George F. Geisinger Memorial Hospital, Danville, Pa. Basement plan.

and the surgeon's dressing rooms. Connected with this department is a fresh-tissue laboratory equipped with freezing microtomes. The operating room is of ample size, is piped for sterile water, nitrous oxide and oxygen, and compressed air. The flooring is of tile, the wainscoting of white Vermont marble. Splendid illumination is furnished from a large ground plate glass window in the north wall and a ten-foot skylight overhead. At night light will be furnished by a set of Bartlett reflectors. The operating table is of the Balfour pattern, occupying a fixed position in the center of the room. Pipes placed beneath the tiling carry sterile water directly to the table, while conduits containing various wires supply current to plugs set into the table itself for the operation of cauteries, illuminators, motor-driven apparatus, etc. The wash sinks in this room are piped for sterile water directly from the tanks in the main sterilizing room. The latter is finished like the operating room, in tile and Vermont marble. Here are situated the hot and cold water sterilizers, the instrument sterilizer, the dressing sterilizer and the sterilizer for the handling of utensils. All the apparatus is operated by high-pressure steam and is supported from the wall on steel brackets. The dressing and water sterilizers exhaust to the outside air through a Hendrickson device. Besides the main sterilizers there is in each of the five ward offices an electric instrument sterilizer.

On the flat roof over the east wing a roof garden has been provided for convalescent patients.

The walls of the entire building are finished in enameled plaster. The floors in the basement are of terrazzo and those in the corridors and in the wards are of battleship linoleum. The private rooms are laid in hard pine. All bath and toilet rooms have tiled walls and floors. The building is provided with forced ventilation, while the heating is by steam and the lighting by electricity. Most of the lighting fixtures throughout the institution are of the indirect type.

An elaborate system of telephones and signals has been installed. The institution has its own switchboard in the main office, serving about sixty lines. At the side of the main board there has been erected by the signal device makers a board of special design on which is located the "in and out" annunciator from which the operator tells at a glance just what members of the staff are in the building. On the same board is mounted a telegraph key by which the operator can send code signals over any one or all of eight separate circuits connecting fifty tickers placed in various departments of the five buildings. Every member of the staff will have his or her own signal, and by this system can be found at a moment's notice.

The nurses' home stands to the east of the main building. It is a brick and stone structure of two stories, having room for about thirty nurses. Each nurse is given a room to herself, and all the

Fig. 6. George F. Geisinger Memorial Hospital, Danville, Pa. First floor plan.

rooms are connected by telephone with the apartments of the chief nurse. On the first floor are three large rooms arranged for the convenience and comfort of the occupants of the building.

Fig. 7. George F. Geisinger Memorial Hospital, Danville, Pa. Third floor plan. (To right and left is roof.)

Here is to be found a fireplace, a piano, a Victrola, a library, writing desks, etc.

The power plant and laundry are housed in a building together. On the upper floor is located the laundry, fitted with the most modern electrically operated laundry machinery. In this department is a large sterilizing washer for the handling of badly infected clothing. On the same floor is a steam and formaldehyde mattress sterilizer. In the basement of the power house are three one-hundred-horsepower, high-pressure boilers. These furnish steam for the five buildings, pipes being led through tunnels to the various divisions of the institution. In the engine room are located the various feed and vacuum pumps, the refrigerating machinery, which pumps chilled brine to the various diet kitchens, the ice-plant for the manufacture of artificial ice, and the emergency lighting plant. Current for lighting the institution, as well as for operating its thirty or more electric motors, is admitted to the building over a high-tension line carried in conduits beneath the ground. A room in the sub-basement contains the transformers for stepping the current down to one hundred and ten volts. A separate transformer supplying no other apparatus furnishes current to the high-tension transformer in the x-ray department. In case of an emergency, current will be furnished to the hospital by a ninety-horsepower direct-connected generator in the power house.

The main hospital and the nurses' home are cleaned by vacuum apparatus. A 12x16-inch vacuum pump is located in the basement and is connected to numerous outlets on the various floors of the two buildings mentioned. The machinery is electrically driven and can be started and stopped from any one of the various outlets.

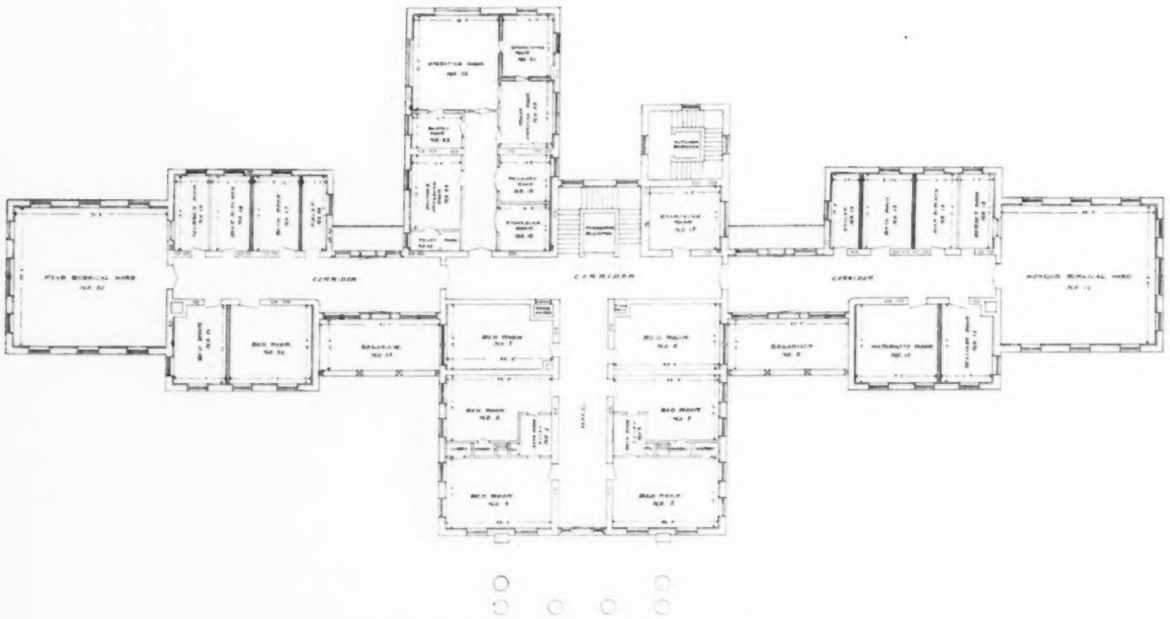

Fig. 8. George F. Geisinger Memorial Hospital, Danville, Pa. Second floor plan.

In the main building there is a large elevator for carrying beds and wheel stretchers; also one for freight, and a dumbwaiter serving the diet kitchens. All are electrically operated and are automatic.

In the rear of the hospital is located the building containing the garage and stables. In the

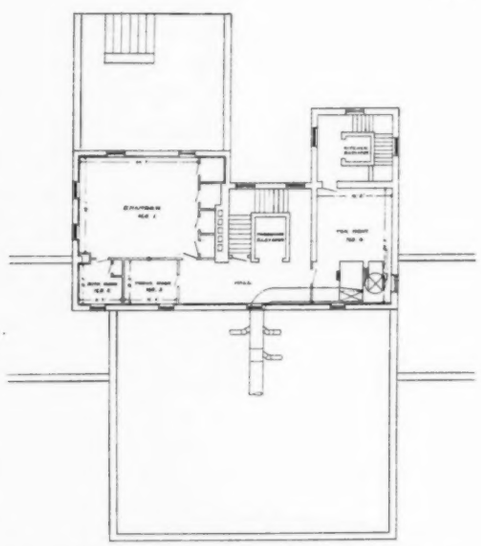

Fig. 9. George F. Geisinger Memorial Hospital, Danville, Pa. Fourth floor plan.

garage room has been provided for four cars. There is a specially constructed Packard ambulance, together with a smaller horse-drawn ambulance. The second floor of the garage is given over to the quarters of the male help.

The fifth building of the group is equipped for the making of post-mortem investigations and for experimental research.

When the Geisinger Memorial Hospital was projected its generous donor agreed to furnish, on its completion, an adequate endowment. This has been completely fulfilled. The institution will be in charge of a fixed staff residing on the grounds and under the general direction of the attending surgeon. Dr. H. L. Foss of the Mayo Clinic has been appointed to this office and on the completion of the hospital will assume charge.

On the 24th of September, the anniversary of the man to whom the institution stands as a fitting memorial, the official dedication will take place and shortly after the hospital will be opened to patients.

Coeducation at Charing Cross Hospital Medical School

The falling off in numbers of medical students of the male sex and the increase of applicants for a medical training at the London School of Medicine for Women (Royal Free Hospital) have prompted the authorities of Charing Cross Hospital to allow coeducation—something that a few years ago would have been considered not only unsuitable but quite impracticable. The Hospital, in commenting on this new departure, suggests that the authorities consider the desirability of gradually replacing male medical students by women, and adds, "meanwhile the fees of new women students will be a welcome addition to the depleted exchequers of some of the London hospitals; for is it to be supposed that Charing Cross Hospital, although first in the field, will have a monopoly of the overflow from the Royal Free Hospital?"

American Hospital in Florence

The American colony in Florence has secured from the Italian Red Cross the historic Villa del Sole di Camerata, for use as a hospital for convalescent private soldiers. The Italian Red Cross will furnish the medical staff and all expenses of equipment and maintenance will be met by the American committee.

Fig. 1. Spinning, weaving and rug making.

OCCUPATION OF PATIENTS IN STATE HOSPITALS FOR INSANE[1]

Benefits of Work and Diversion Heretofore Have Been Restricted to Willing Chronic Patients—Now All Patients Must Have These Advantages—Threefold Purpose: Therapeutic, Reactional and Economic

By HENRY P. FROST, M. D., Superintendent Boston State Hospital, Dorchester Center, Mass.

THE threefold function of occupation of patients—therapeutic, recreational and economic—gives the subject a position of prime importance in mental hospitals, especially the large state institutions treating and caring for all classes of the insane. These aspects of occupation have long been recognized and in varying measure have received attention, but until comparatively recent years effort has rarely gone beyond the economic utilization of the willing and more intelligent chronic patients and the diversion and treatment of convalescents. These are the obvious and easy avenues of use demanding the minimum of effort on the part of the hospital administration; and, while useful, are limited to a relatively small group of patients not very badly in need of the help.

From this sort of self-propelling activity to an organization extending the benefits of employment to the great mass of demented, untidy, destructive and violent chronic patients is a long step and a difficult one. The very existence of these troublesome classes of patients in the institutions is due in great part to the lack of occupation to which they have been condemned. Nowhere is it more true that idleness is the root of all evil. Certainly it breeds dementia and fosters the formation of untidy and destructive habits as well as bad temper and violence. A program of occupation which stimulates interest, replaces confusion with order and gloom with good cheer, contributes to the cure of many, and cuts down the cost of supervision and maintenance, is well worth the effort involved in its establishment.

The great value of occupation in the treatment of the insane lies in its infinite variety, its adaptability to innumerable individual tastes and capacities, its range from utmost simplicity to stimulating technical exaction, but above all in its essential normality, by reason of which it constitutes for these unfortunates the natural passageway back to normal life. Wandering attention is trained anew to concentration; distracting thoughts are pushed into the background; delusive concepts and hallucinations are crowded out of consciousness by demands of reality; depression and feeling of inefficiency respond to the en-

[1]This is the sixth in a series of papers on "The Government of State Hospitals for the Insane." Last month appeared "Organization of Domestic Departments"; next month will be published "Nurse Training in Mental Hospitals."

couragement of approbation; and self-respect is built up again by successive accomplishments which are tangible and which afford satisfaction as they do in states of health.

The recreational quality is inherent in anything that breaks monotony and gives new or keener interests. The sight of other people variously engaged excites a desire for corresponding activity in the mind of one who is perforce idle, whether as yet unaccustomed to idleness or surfeited with it. We often observe among our patients this suggestive force of example, and find it of great assistance in the propaganda. Sometimes, indeed, applications for employment have to be refused to patients not yet in condition to be benefited by it. The diversional feature needs, however, to be emphasized in order to obtain the best therapeutic results. This can be done in a variety of ways, according to individual temperament: for some the change to another kind of occupation introduces a sufficient new zest; for others the introduction of a social phase, such as group employment, with music and refreshments, or some form of competition, gives the work a flavor of play or a pleasing admixture of it.

The economic value of patients' employment is difficult to compute; it is certainly considerable. Their fancy work can be sold for at least enough to pay the cost of materials and instruction, and in our experience the same is true of the saving on products of the workrooms that are of use in the hospital, leaving as clear profit the large item of repair work done. The incomputable value is found in the diminution of loss from destructive tendencies associated with the aimless activity of these patients when unemployed, and the reduced cost of supervision and attendance resulting from the improvement in their habits as regards destructiveness, disorder and violence. A further very distinct benefit to the administration is to be noted in the better spirit which pervades the nursing staff when a regime of definite and interesting duties in connection with the industrial program replaces the drear routine of lolling and keeping an eye on a ward full of restless, unhappy, dull, and dirty dements.

Fig. 3. Making straw hats.

At the Boston State Hospital there has been for the past five years an earnest effort on the part of the management to realize as fully as possible the benefits of occupation to the patients and to the hospital.

The ends sought have been purely practical. They may be summed up as embracing (1) the substitution of purposeful and useful activities for the prevailing idleness of the able-bodied patients with its attendant train of degenerative and anti-social tendencies, and the promotion thereby of better mental and physical health, improvement in habits and conduct, more contentment and capacity for enjoyment, renewal of hope, and the furtherance of recoveries; and (2) making the economic result such as to justify in itself the effort and out-

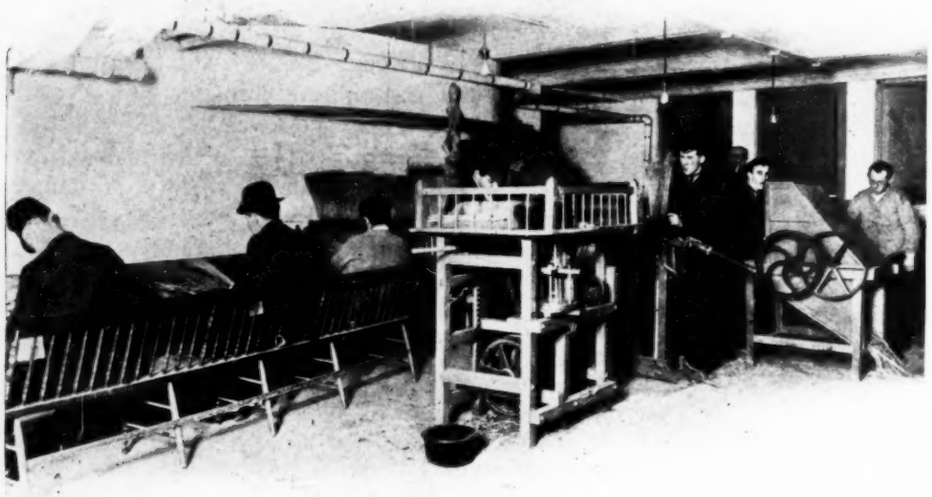

Fig. 2. Broom making.

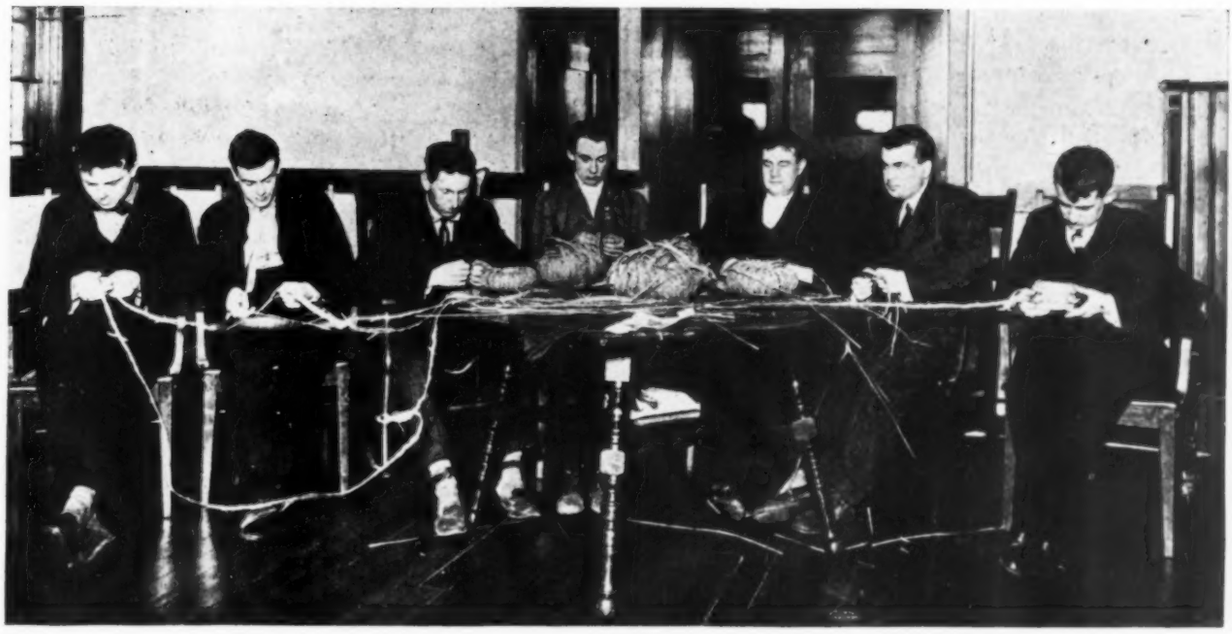

Fig. 4. Braiding straw.

lay, leaving the therapeutic and administrative benefits as clear gain.

In 1910, the beginning of the period under review, the number of patients in the hospital was 785. The percentage employed was 40, practically all in the domestic and outdoor routine. There was a small sewing room in which an average of 18 women were occupied, and three or four men made mattresses in a basement room. There were no ward occupations outside of housework and a little sewing and fancy work by a few women, largely on their own initiative.

At the present time, with 1,400 patients, the percentage employed is 60 and their occupations are classified as follows:

JANUARY 12, 1915

	Males	Females	Total
Census	614	789	1,403
Employed	408	433	841
Percentage employed	66	55	60
EMPLOYMENT			
Ward work	234	205	439
Handiwork in wards	59	168	227
Industrial rooms	60	86	146
In administrative departments, laundry, kitchens, etc.	59	55	114
With mechanics	16	0	16
Farm and grounds	47	0	47

Without going into the details of measures taken to effect this fairly radical change in practice and a still more radical change in spirit on the part of both staff and patients, I may state that the work was begun independently in the men's and women's departments, in each of which was opened a small industrial room, since greatly expanded, under the charge of an inexperienced but willing and capable head. These potential instructors were sent for brief periods to institutions where occupation of patients was under way and also to industrial establishments to learn materials and methods. Work was begun with the better grade patients to insure success from the start, and they were given simple forms of occupation, after which the plan was to advance the capable workers to more complicated processes, filling their places with less promising beginners,

Fig. 5. Weaving rugs, bookbinding, and brass work.

who should be, so far as practicable, instructed by their forerunners.

The men at first made mattresses, brooms and door mats and caned chairs, later taking up basketry, brushmaking, weaving, upholstery, woodworking, and finally the manufacture of straw hats, besides doing a great variety of repair work. There remain to be added in this department tai-

loring and shoemaking, both of which are planned to be started this year.

In separate quarters and in classes in the wards during the winter, men unwilling to undertake or to stick to the utilitarian industries mentioned have been taught wood carving, leather and ornamental metal work, occupations serving the purpose of stimulating interest and keeping alive the habit of doing something definite each day. The capacity for work thus fostered through the winter months is given useful and still more beneficial direction when spring comes, by the substitution of outdoor employment in the garden or on the farm or lawns; and the same change is made in the case of many of the regular workers in the industrial rooms, which, to quite an extent, are used as a preparatory school in our scheme of industrial education, as well as a finishing course in convalescence, fitting patients for return to productive life outside the institution.

In the women's industrial room the occupations are sewing, mending, weaving, spinning, rug making, basketry, braiding straw and making hats, lace making, all kinds of fancy work, knitting, crocheting, tatting, making paper flowers, stenciling, working in water colors, and clay modeling. Taking into account the fact that some such work as the above is a part of the home life of practically every normal woman, we use the industrial room in their case more to get something started than as regular working headquarters. Patients are there given a chance to show their individual interest and capacity, or are given aid and instruction to develop these qualities and then encouraged to spend a part of their time in useful or agreeable occupation in their rooms or in the wards, thus giving to these quarters and to their life in them more semblance of home. Men, on the other hand, not being accustomed to such home occupations, and finding their interest chiefly in varieties of work requiring tools and making litter and noise, cannot so well be left to follow their employments singly or in groups in the wards, though this is done with them to quite an extent, too, several wards having frames for hooked rug making, or light looms for carpet weaving; in others there is group employment in such simple work as raveling old stocking tops for use in the weaving room, braiding straw for the hat industry, and picking hair for mattresses.

The organization for occupation comprises two divisions—one for men and one for women—each of which is headed by an instructor who has one assistant. The instructors have charge of the industrial rooms, where they direct the patients and also train attendants and nurses to act as assistant instructors in the wards. The practical experience thus acquired by the nursing staff is supplemented by lectures and demonstrations given as a part of the training school course. The head nurse in each ward is responsible for the maintenance and further development of suitable occupations among her patients, and she has the assistance of the instructor, who at stated times visits each ward to inspect and direct the work and in certain wards to give class instruction. This is the program for the women. With the men it has not been practicable to follow exactly this plan because the industrial room demands all of the instructor's time and the ward occupations of the men do not require so much expert supervision.

After some success had been obtained in developing the interest and cooperation of the nursing staff and the more intelligent and willing patients, special attention was given to the occupation and training of the least intelligent class and to the introduction of safe and suitable occupations in the ward treatment of those with violent and dangerous tendencies, for it was felt that these were the larger and more important fields for really effective work. For this latter class the straw hat industry, now well established, has proved most satisfactory. The work of braiding the straw is simple, interesting, clean, and no tools are required. Hair picking, raveling, to some extent rug making, and, for the women, sewing, are other employments suitable for these wards, which have as one of their benefits to the patients engaged the not infrequent improvement in conduct sufficient to allow of their transfer to the regular work rooms and participation in other industries.

The simpler ward occupations mentioned are of particular value in dealing with demented patients who cannot go to the work rooms, but, when weather conditions permit, their use for this class is almost entirely supplanted by outdoor work. Our best industrial exhibit is the series of wards empty of these patients, who are to be found in large parties on the grounds engaged in the simple tasks of digging, wheeling earth, gathering and breaking stones, etc.—developing one by one into really capable workers suitable for the more responsible tasks of farm or garden, and earning transfer to higher grade wards with pleasanter companionship.

The training of these patients to usefulness and their own betterment is work that demands intelligence and whole-hearted interest on the part of the employees entrusted with their direction. It cannot be done successfully unless the attendants are carefully selected, properly instructed in the principles to be used and the objects aimed for,

and stimulated by constant suggestion and discussion, and, above all, approbation of results attained. Success is won when the employee is made to realize the dignity and value of his work as an agent in the patients' treatment and learns that his results are not measured by the volume of their work product alone.

In like measure, though in less formal fashion, all heads of departments—the chef, the laundryman, the mechanic, the engineer, the farmer—and their assistants, become efficient industrial instructors and incidentally valued agents for treatment, since all have patients assigned to work with them, and, even if prompted originally by no higher motive than self-interest in the development of capable assistants, they deal out to their charges the helpful stimulus of cordial companionship and a common purpose.

THE DOCTOR'S PART IN MAKING THE SMALL HOSPITAL SUCCESSFUL

By High Order of Medical Service He Can Popularize His Institution—In His Relations to the Administrative Forces He Can Exercise Strong Influence

By DR. CHARLES H. COOK, Natick, Mass.
PRESIDENT OF THE FEDERATION OF STATE MEDICAL BOARDS OF THE UNITED STATES

IT is assumed that the doctor has either accepted an invitation from the trustees to assist in the charity work of the hospital by serving on the staff, taking his turn in the ward service, and, as is customary in most hospitals, giving his services to ward patients, with the right to send his private patients to the hospital and personally care for them, or has accepted an election to some other position which allows him to send private patients there and care for them himself.

The acceptance of such an invitation or election is, in itself, a tacit agreement to conform to the rules and regulations of the hospital, even though the rules may not be in every way just and equitable. So long as he continues in either of the relations above named, that obligation holds. The principle here involved holds true universally, no matter with what organization one becomes voluntarily allied, be it a private school, a college, a secret society, a benevolent association, or a church—whoever voluntarily joins an organization, by that free-will act tacitly agrees to conform to its rules and regulations; failure to accept and abide by this self-evident principle is at times the underlying cause of friction and trouble.

Having become connected with a hospital, the doctor thenceforth holds a manifold relation to (1) the ward service, (2) his own private patients and to the private patients of the other hospital physicians, (3) the other hospital physicians, (4) the hospital nurses, (5) the every-day hospital routine, (6) the hospital authorities, (7) the public.

1. Ward Service.—Ward patients in most hospitals have no choice as to their medical attendant. The physician may be one whom they would not choose in private. However that may be, they have no alternative. Thus an added responsibility is put on the attending physician, that he lay himself open to no deserved charge of neglect. The word "deserved" is used advisedly, for often the ward patient receiving free medical treatment will "look a gift horse in the mouth" and complain even of some fancied neglect. An honorable and conscientious physician will, therefore, be very faithful in his ward attendance—even more so, perhaps, than in caring for his private patients—because in the latter case he is the patient's choice, and that fact alone attests confidence in him. Failure to observe this precaution, soon or late, redounds to the hospital's discredit and arouses criticism when commendation would otherwise follow. The physician must show that the welfare of the patients stands uppermost in mind by calling, in cases of serious illness, other medical men in consultation. He thus avoids taking undue responsibility, and will not be open to criticism, neither will the hospital, should the case result unfavorably. The confidence thus inspired that ward patients will be properly cared for adds greatly to the good name of the hospital.

2. Private Patients.—These include his own private patients and those of other physicians. It may be taken for granted that the doctor will take as much interest in his own hospital patients as he would were they at home. But he must needs have especial care as relates to the private hospital patients of other physicians. People in the smaller towns and cities are more or less prone to assume that every hospital doctor knows all about every hospital patient, and questions are asked, expecting or seeking information that would not be sought were the same patients at home. By helping to cultivate the understanding that patients in hospitals have the same right to privacy concerning themselves that would surround them at home, each physician can help to develop the feeling that patients are protected and

their rights respected, and thus others are willing, when sick, to go to hospitals who otherwise would refuse. The late Austin Flint, of revered memory to all who were privileged to come in contact with him, in his book, "Clinical Medicine," says:

"The examination of patients, either in private or hospital practice, should not be made in the presence of disinterested spectators. A full investigation involves points of inquiry which are among the confidential communications from the patient to his physician. . . . The physician has no right to make known the diseases of his patients without their consent."

Would that the laity had a working appreciation of this truth. Both in ward service and also in private hospital cases, physicians should religiously avoid any criticism, either by word or by look, of the past, present, or future treatment of other hospital patients. Failure to observe this really obvious obligation may result in keeping other patients away, and justly.

The doctor doing ward service ought to be very careful to send patients, when discharged, back to the physician who recommended their admission, else he is justly open to the charge of using his opportunities to get away the patients of other doctors, something in every way to be condemned.

No physician connected with a hospital ought to ask for or expect favors and privileges that cannot properly be granted to every other physician similarly situated. He should not ask for a suspension or departure from the established hospital rules "for me." Trouble will necessarily follow a departure from this rule. "Equal rights, equal privileges," is the only workable motto.

3. Relations to Other Hospital Physicians.—If every physician be always and everywhere a gentleman, if he observe the golden rule, if he recognize the absolute necessity of doing good "team work," and observe the every-day professional courtesies, much otherwise unfortunate friction in hospital administration will be avoided. To add to this statement would seem to be a work of supererogation.

4. Relation to the Hospital Nurses.—It is greatly to be regretted that so often, judging by treatment given nurses, they are thought by becoming nurses to undergo a physical change; that they are metamorphosed, as it were, into beings made of Bessemer steel, and can endure unkind words, criticism, overwork, loss of sleep, no hours off duty, etc. Too often hospital physicians treat nurses as inferior beings. The nurses are expected to show by their demeanor that they recognize and acknowledge their inferiority. Kind words, thoughtful consideration, shown by acts and words of appreciation on the part of physicians, will produce a bountiful harvest of self-abnegation, secure attention to details otherwise neglected, and lighten and cheer the every-day life of the student nurse, who is often between the sometimes exacting doctor and the suffering and often intolerant patient, but must endure in silence whatever is said to her, no matter how unreasonable and unjust. Let the physician but imagine for one little moment that the nurse is either his sister or his daughter, and he will see the situation from a different viewpoint. Nowhere will kind words and kind treatment bear a more abundant harvest than in the appreciative and considerate trained nurses. Were the doctor influenced wholly by mercenary motives—which he ought not to be—kind treatment would pay in the enhanced good name he would get outside, for often his hospital words and actions get to the outer world in unexpected ways.

5. Relation to the Hospital Routine Work.—Every hospital has a certain amount of daily work which must be done. Sudden and unexpected interruptions break into and confuse the daily routine. The doctor, especially in his surgical cases, can either help or hinder, according as he is either thoughtful or inconsiderate. Emergencies cannot be avoided, and must receive attention whenever they arise. Certain days for admission of cases not acute, and specified days and hours for operations not immediately imperative, would help to make the hospital machinery run with less friction. To get notice that an operation will "come off" in an hour or so when it has not been planned for, and the duties already demanding attention would fill the time to seemingly its full capacity, adds a burden that is seldom realized save by those on whose shoulders it comes. When the operation is to be done by a surgeon from a city more or less distant, his convenience and duties elsewhere must be considered, but even then thoughtfulness for the hospital can often make the interruption less acute.

Making professional visits at unseasonable hours is especially upsetting to good order, as well as very disturbing, not only to the patients of the physician himself, but also to the patients of other physicians, whose rights to quiet in seasonable hours ought to be respected.

Avoiding wastefulness in surgical dressings, especially in removing and replacing them, will greatly lessen the yearly expense account. Lack of consideration in the use of sterile towels, gloves, gowns, etc., always creates an unnecessary expense.

There is a possibility that hospital physicians sometimes forget that people generally are not accustomed to hospital life, and that to be taken from home, admitted to a hospital, rushed, as it were, to the operating room, etherized and oper-

ated on without delay, are more momentous matters to the patients than to the physicians. Could the patients be admitted one or more days beforehand and become "acclimated" to the new surroundings and new life, it is quite possible that patients would often make a more speedy and satisfactory recovery, would be more contented, and leave with words of praise rather than of criticism. "Put yourself in his place" would be a good working motto for physicians.

6. RELATIONS TO THE HOSPITAL AUTHORITIES.—The doctor needs ever to realize that the hospital is under the authority and control of the board of trustees, and that the trustees cannot delegate their authority to anyone else, either physicians or visiting committees. The trustees may, and should, solicit suggestions and recommendations from others, but the final decision in any matter, and the resulting consequences therefrom, rest with the trustees alone. Failure to recognize and observe this fact has been the cause of many heartburnings, especially on the part of superintendents, who are the agents of the trustees, and always represent them in any matter, and whose lot, at best, is sufficiently burdensome, even when free from trials arising as above.

7. RELATION TO THE PUBLIC.—One great difference between the large hospital and the small hospital is the community interest in the latter. Here is a great opportunity for every physician connected with it to help or to hinder its success. They can help to educate the people not to expect something for nothing, even in a hospital, when they are able to pay for care and treatment. There are those in every community who would scorn to be "dependents," but who are willing, if possible, to pauperize themselves by going on the free list as patients, believing that their names will not be published. Instances have been known where such publication resulted in payment of hospital bills, so that the names could be removed from the free list. Let the people be educated against accepting hospital charity unless worthy of it. To do otherwise is to help use up the funds of an oftentime struggling hospital, lessen its ability to care for the really deserving, at times compelling it to refuse worthy applicants for free treatment. Here is a field which the doctor easily neglects sometimes because his field of vision is limited to his individual patients, and he fails to take the wider, broader outlook. Hospitals were formerly the opprobrium of the poor—now they are the boon to the well-to-do. They had their origin in the philanthropic spirit of people able to provide shelter and care for the needy sick. Physicians said, in substance, "we will assist in the professional care of these sick ones by giving our services"—charity all around. But, since the advent of trained nurses, people go to hospitals, especially in surgical cases, because they can get better care. Many of them wish to pay for professional treatment, but in some hospitals, because of the rules made before the advent of the pay patient, they cannot do so. These unjust rules are at times taken advantage of by persons of means, and they thus virtually steal their treatment, be it either medical or surgical. Let the physicians assist in righting this wrong, and the result will be increased benefit to many hospitals and also to the medical profession. Too much charity work is now being done by physicians. Emerson defines justice as "the fairest thing all around." No one can defend such rules as the "fairest thing all around." The medical profession has ever responded cheerfully and heartily to the call of the sick and suffering to an extent far surpassing that of any other calling. It is quite largely through ignorance on the part of the public that the present condition exists. It is often supposed that hospital physicians are paid by somebody, no effort being made to get at the facts—that being thought of no consequence, so long as *they* get free treatment.

The doctor may help to make a small hospital successful by joining hands with the trustees, superintendent, and nurses, who, if true to their mission, are animated by the same self-sacrificing spirit; by seeing in every patient, even the most depraved and seemingly hopeless, the divine form "made in His image," though he may, at times seem to himself to be ministering to merely sick, suffering, perhaps abandoned, folk. When called on to "mutilate God's image," he may come to "wear the glove of velvet, though it may cover the hand of steel;" when fighting what he fully realizes to be a losing fight, he has the great privilege of making easier the last hours of some poor, needy person who otherwise would languish in pain and suffering. Thus he may help to make the small hospital in his community to be, in its truest, highest, most sacred meaning, a "Hotel Dieu."

New York University Offers Two-Year Course Leading to New Degree—Doctor of Health

The list of lecturers in this course at New York University includes Dr. Haven Emerson, deputy commissioner of health; Dr. S. Josephine Baker, director of child hygiene; Dr. John S. Billings, director of the Bureau of Infectious Diseases; and Dr. O'Connel, of the Quarantine Station.

They tell this story on an Irishman who helped pick up a wounded man after a battle. "Poor fellow, one of his wounds is fatal, I believe," remarked the surgeon. "So it is," said Pat, "but the other wan ain't, so he has an aiven chanct."—*Sedgwick Pantigraph.*

HAVERFORD COLLEGE INFIRMARY AND DISPENSARY

A Plain, Simple Piece of Architecture Built for Business and not Ornament—Contains All the Essentials of Good Hospital Service

By BAILY & BASSETT, Architects, Philadelphia

THROUGH the beneficence of Mr. John T. Morris and his personal interest in the plan, a most complete and well-equipped infirmary and dispensary building has been donated by him to Haverford College, Pennsylvania, and has proved a most efficient and valuable adjunct to the institution. Every effort has been made so to construct the building that it shall be fireproof, sanitary, comfortable, easy to keep clean and to maintain.

The walls are stone, the floors and ceilings are iron and concrete, and the finished floors composition, "sanitas," except in the wards, where they have maple centers. The walls are hard plaster, and every horizontal and vertical corner of floors, walls, and ceilings is rounded 1¼-inch radius. Door frames are plain steel, set flush with plaster, without molding, and every frame, door, sill, and window muntin is rounded to avoid places for dust to collect. The doors are solid, without panels, and have rounded edges and corners.

The lighting fixtures and special hardware are all plain, with rounded forms, all porcelain or white enamel finish. Special reading lamps, with shields, are supplied for patients who wish to read without disturbing those who may be sleeping.

There are no washboards or ledges to catch dust, and all the doors, sashes, plaster walls, and iron frames are painted with standard dull gloss "satinette."

A combination direct and indirect vacuum system of heating is used, supplied from the central plant, with thermostatic control, fresh air being

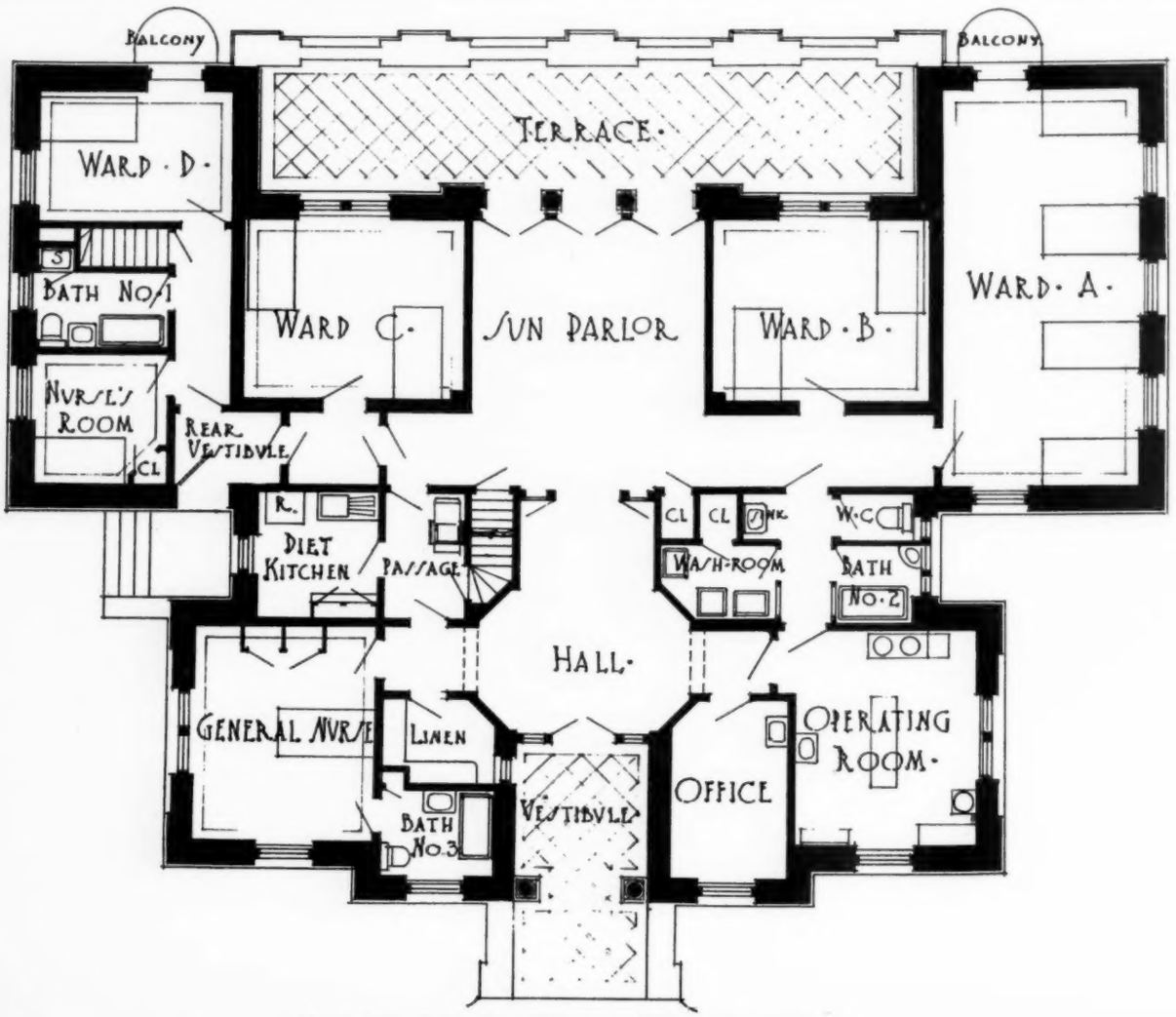

Fig. 1. Haverford College Infirmary and Dispensary. Floor plan.

drawn through the rooms by large steam coils in the stacks at the ends of the building, the bath rooms and sinks being ventilated through an independent duct. The direct radiators furnish auxiliary heat at a comparatively low temperature.

The preference of the sunny side of the building has been given to the wards, the sun parlor,

Fig. 2. Haverford College Infirmary and Dispensary. Southeast view.

and the terrace, the effect of the latter being like a southern clime to the convalescent when the cold is bitter on the northern side of the building. The sun parlor, with its glass doors, which are opened wide in mild weather, has proved to be most comfortable and practicable. The office and the nurses' rooms are near the entrance, and the

Fig. 3. Haverford College Infirmary and Dispensary. The operating room.

latter have a private bath room; the linen room and diet kitchen are located near here.

The operating room, though convenient, is isolated by two doors from the wards, and adjoins the doctors' office and the wash and toilet rooms. The doors are all wide enough to allow the wheeled operating couch to pass through easily. The room is lighted by large windows on two sides and by a skylight in the ceiling, where a swinging electric lighted canopy takes its place for night operations. The room is fully equipped with sterilizers, x-ray apparatus, basins, instrument cases, etc. The wash room has separate sinks for disinfection of clothes, washing, etc., and is separately ventilated.

The contagion ward, D, is practically an isolated building, with an independent outside entrance. This entrance vestibule has only an iron grille and no solid door, thus leaving the passage in this ward open to the outside for thorough ventilation, the entrance platform being protected from the weather by a glass hood above. Two pairs of double doors cut this ward off from the main building. It also has its individual nurse's room, bath room, hopper with ventilation through special flue, diet kitchen and laundry for washing and disinfecting clothes on ground floor below. In case of additional contagious patients, ward C

Fig. 4. Haverford College Infirmary and Dispensary. A small ward.

can be used, closing the double doors, which have a special key and can be operated only by the college authorities, so as to insure perfect isolation from the main building when contagion exists.

Outside balconies are provided on the same level as the floor, so that patients can be pushed out on wheel chairs for fresh-air treatment.

The loft is used only for the steam coils and ventilating ducts, and the main basement for the heating apparatus and supplies. A stone wall in the basement completely separates the laundry and diet kitchen of the contagion ward.

As the building is on sloping ground, the basement floor is just above the sod on the south side of the building, which renders the sun porch at least 9 feet above the ground, affording it protection, privacy, and a fine outlook over the lawn, tennis courts, and athletic field.

NERVOUS AND MENTAL DISEASES IN THE CURRICULUM[1]

Proper Conduct of Life and Service Depend on Study of Mental Processes Through Modern Psychology—Suggested Approaches to the Study

By FRANK P. NORBURY, A. M., M. D., President and Medical Director Maplewood Sanatorium, Jacksonville, Ill.; Formerly Alienist Illinois State Board of Administration; Formerly Superintendent Kankakee State Hospital

THE ultimate object of a curriculum in any educational institution is to provide best for the educational needs and guidance of the student, by defining the course of study and elaborating appropriately the procedure.

It is an error, however, to believe that the content of the curriculum is the only important consideration, for the most aptly selected and most skilfully elaborated course of study does not automatically produce trained minds. The essential feature is good teaching; poor teaching will spoil the most thoughtfully constructed curriculum. The purposes of the curricula in our training schools for nurses are no more, no less, different in educational aims and purposes than those of all educational procedures, which, as we know, are, even in animals, for the purpose of adaptation to environment. Man's endeavor in adaptation is profoundly altered with the growth of his environment as he finds it in human society; but, somehow, we forget this fact in our educational propaganda, and therefore we take the liberty of reiterating, *adaptation*. Learning in man, whether it be a new adaptation to a changed situation or the acceptance of an intellectual truth or moral principle, depends much upon the content of the individual mind, and this assumes infinitely greater importance when environmental needs become more and more complicated.

The history of professional education in medicine and in nursing, as in all constructive work, shows the growth of knowledge, culture, and higher intellectual needs in this purpose of adaptation to social cultural necessities.

The teachers' work, then, is highly constructive, and the purpose of education is not only to fit each generation for adaptation to the grade which society may happen to hold at the time, but to create in men the habit of discriminating and of choosing that which leads to something higher. We are told that education is always in danger of arrest from compression by immediate or practical aims. According to Mary Ard MacKenzie, R. N., of Ottawa, Canada, this is the fault of the educative situation in the modern training school for nurses. This is doubtless true, because the evolution of the training school is but the recapitulation in experience of educational progress.

Medicine had the same tribulations, and, until the advent of the supervision of medical education by the American Medical Association and the Carnegie Foundation, there was no definite plan of standardization of curricula, or real recognition of cultural values, commensurate with the adaptive needs of the times. The old methods of medical instruction did fairly well for the conditions of early times in our civilization, but when the necessary adaptations to meet adequately the demands of a growing order, and the whole social plexus, must be considered, new interpretations were incumbent.

The result has been an accelerated adjustment to the information of today; medicine means more to us; we are in a receptive mental attitude and friendly to variations which contribute to progress. Now, as I see the situation in the training school for nurses, there is the need for readjustment to the demands of the times. Training schools have not fully defined their objects nor elaborated appropriately their curricula to give full educational and cultural values. Somehow, the impression prevails today as in the days of old in the medical training, that if we give the individual information enough, he or she will, sometime or somehow, learn in daily experience to apply it to the problems at hand. Just here is where readjustment is necessary—where adaptation must be considered ere we defeat the very purposes for which our schools are designed. This is the conflict: pupil nurses, like medical students, are not flexible; they cannot adjust themselves by simply acquiring knowledge. Fitting for adjustment, for adaptation, should be the part of the educative and cultural end of training. Education should rank, as Swift says, "to develop mental plasticity, a capacity for understanding and getting control of new situations and for making them."

I am not here in a spirit of censure, nor to urge any particular propaganda, but rather in a missionary spirit, urging you to consider more fully psychological motives, that we may get away from the danger of compression from immediate practical aims—the alien animal methods—and substitute the highest goal, that of preparation to select the largest environment which educational needs can supply.

[1] Paper read before the Illinois League of Nursing Education, Springfield, Ill.

Our schools frequently are institutions of learning, but not of education for adaptation.

There is a difference between schooling and education. Education means adjustment to enable the individual to realize all of his native powers to their full value. This promotes progress by removing artificial restrictions or individual variation. Today the social needs cry for "dynamic educational life" and not for "static animal methods" of the past. This will mean a reorganization of our ways and means and a larger view of life—a social awakening, and a greater conception of what experience is and what we may profit by it.

The training school must consider more particularly the ultimate object of all curricula, viz.: the training of the peculiar aptitudes of the pupil nurse, by sifting, selecting and preserving these aptitudes for the service in hand. This means doing away with the inelastic and unsympathetic methods of teaching which are destructive to individualism.

Mary Ard MacKenzie, R. N., says she "could name dozens of bright, promising women whom she has seen, filled with the missionary spirit, eager to do something to help someone to be better, happier and healthier, who have entered on a training in various so-called training schools, and have issued from these institutions warped, narrow, mercenary, with all their ideals gone, and in almost every case gone beyond recall."

This is true according to my own observation and I am glad to have it confirmed by one of larger experience than myself. I believe the fault is in the curriculum, which so frequently is chaotic, undefined, weak and inefficient in educational values. Perhaps I am too much of an idealist and too rampant on individualism. I may be a reformer crying for greater latitude for variation without destruction—that we may, true to the law of survival of the fittest, be appreciative of a larger, more universal educational privilege which will enable us to foster, maintain and profit by experiences which contribute their worth to the supreme object of the professional nurse—viz.: service. Let the training schools awaken to their opportunity by readjustment of their curricula before they are forced by social circumstances to do so. Swift says: "It has always been the tendency of educationalists, like politicians, to resist reform until revolt has forced it upon them, and then, in yielding to the inevitable, to adopt the nearest apparent relief." Let it not be said of our training schools that the adoption of new educational ways and means is to come simply as the nearest way out for apparent relief, or a compromise with the inevitable demands of educational readjustment. No! let it come as a constructive measure; a new adaptation; a new estimate of the needs of the pupil nurse by drawing into the problems her rich personality, that she may know life as it is, and constructively interpret ideas and situations and apply this knowledge in a true professional way. This means a study of the individual pupil and an adjustment of the pupil to the adaptive ends.

The whole curriculum of training schools will have to be readjusted to educate the students as individuals and to make the school course one of real educational value.

To meet this end, there necessarily must be more consideration given to preliminary training, to the selection of pupils who will be prompted to enter with the true spirit of service and with belief in the educational opportunity which such a career offers. The late Dr. James G. Mumford, in his versatile handling of the problems of the practice of medicine, presented in his charming little book, "The Doctor's Table Talk," some of these acute and vital problems which confront us today. In reply to the criticisms of the trained nurse he says, "they are criticized more unfairly than any other people in the world except servants and doctors." This is true, but like the servant and the doctor, many of these criticisms are of their own making and due to the want of knowledge, experience, or the kindlier motives which should prompt one in serving his fellow man. Much of the criticism I believe could be overcome, dispelled and suppressed if pupil nurses could study human conduct in its realities as we find it among the nervous and mental cases, and seeing, hearing, absorbing and interpreting such experience, deduce their "noble career" through the serious philosophical views of life which such an experience must give them.

I say this advisedly, and will add that the subject of nervous and mental diseases in the curriculum of a training school in the general hospital will have real educational value, providing, of course, it is not to hold a perfunctory, superficial place in this curriculum. The tendency of the times is toward a more comprehensive study of human conduct. Psychology is the study of human conduct, and it is evident that the students of medicine and of nursing, dealing as they do with human personalities, must become familiar with the science of psychology that they may apply it in the practice of their professions. Psychology has taken the central place in the thought of our time, says Munsterberg; "it began with an analysis of simple ideas and feelings, and it has developed to an insight into the mechanism of the highest acts and emotions, thoughts and creations. It started by studying the mental life of

the individual and it has rushed forward to the psychical organization of society, to social psychology, to the psychology of art and of science, religion, language, history and law. It started in the narrow life of philosophers and is now at home wherever mental life is touched."

The new creed would impress upon us the need of studying personalities, beginning with our own. Personality is a content—the central content—of our consciousness, and psychology teaches how consciousness grows and influences the development of mental life. We thus learn how personality crystallizes about sensory, motor, and all sensations which come to the body and radiate from it in the form of reactions known as conduct or behavior. The growth and development of our personalities is dependent upon the manner and form (our adaptation) in which we "appropriate from our environment—from everything which works in the world under our control—in the interest of our influence, just as our body works, including thus our name, our clothing, our place in society, our work, our property, our citizenship." Our personality is not a matter of chance formation. It does not depend on chance knowledge and chance sensations. It remains, when once formed, and is the central group of psychical contents which accompany the transformation of experiences into action; that is, thinking, feeling and doing.

"Psychology deals with the whole scale of personalities as found in us: the psychological one; the sociological one; the ideal one; but each one is and can be only a group of practical contents—adjustments, a bundle of sensational elements."

The idea of personality, then, is associative, and the unity and continuity of personality means the casual connection of its parts by which anything that has once entered our psychical life may be at any time reproduced and may help to change the associative effects which come from the idea of ourselves. Thinking, feeling and doing under normal conditions should produce an agreeable mental state in ourselves. We think logically because the result is useful for us; that is, it secures the desirable practical ends. We act morally because we wish to give others that happiness which we desire for ourselves.

The production of the psychological states of delight and enjoyment in us and others and the reduction of the opposite mental states of pain and sorrow are the only aim and goal of a full, sound life. Were all the disagreeable feelings in human consciousness replaced by happy feelings, one psychological content thus being replaced by another, "heaven would be on earth." Happiness is the goal of every personality even when one takes his own life. Students in medicine and nursing approach the problems of self and of all psychological phenomena with the prejudice of almost all laymen. Directors of training schools in general hospitals, like their fellows in the practice of nursing, and physicians in general, are seemingly confused at the so-called complexity of nervous and mental disorders: they are strange, uncanny and without the range of ordinary experience. Now, if they would stop, think, look and listen, they would find that nervous and mental disorders not only enter into contact with all fundamental sciences of medicine and biology in general, but also invade the social and moral sciences. As a result these problems require data from nurse and physician alike, and nurse and physician should be prepared to supply it.

Rarely, indeed, do I find even a director of a training school or the attending physician prepared to supply those data. Why? Because they have received no training and have not correlated their experience in a usable way nor even tried to interpret what they saw. I am sure that this great, growing need must be met; and it is high time that training schools were recognizing this need.

Again, this need is being shown and met in the wonderful advancement being made in social service, which has now become a necessary adjunct to hospital service.

The good which our hospitals are doing is greater every year and the dread of hospitals is lessening every year. In spite of the impersonal organization of hospital service, there is an awakened interest in the individual patient; this is the American idea. We owe to Dr. Richard Cabot, in his appreciation of man as an individual, the development of the social service idea.

His belief is in social service as well as in clinical studies, "to concentrate upon the individual. Don't bind up your patients in inflexible groups; learn their stories; follow them to their homes; stimulate and inspire them." This is the present teaching; it is due to the awakening which psychology has given us, and the individual is the unit of service. Social service has now a course in the curriculum of the medical department of the Indiana State University. Dr. Emerson has interested his senior students in active participation in this work. There is no doubt that the time has come when there should be, in the curriculum of our training schools for nurses, a place for nervous and mental disorders. It should be a reasonable method, dealing with the peculiarities of thought and conduct and the rules governing these mechanisms, especially the physiology of the associative mechanisms of the brain (which is

really psychology), which is the consideration of nervous activities as means of adaptation.

Jung formulates these psychological needs as follows:

It means an understanding of the laws governing the selection of reactions, thus laying the foundation for a study of the conscious feelings, called moods, affects, attentive intervals, etc., on the one hand; and the bodily conditions on the other. The adoption of such a method will give a clue to the rational understanding of disorders wherever found. The persons described as insane, hysteric, psychasthenic, the patient disturbed with so-called nervous dyspepsia, etc., have all adopted a certain attitude toward the situation in which they are placed.

This may be described as unusual or abnormal, but not necessarily as diseased. The conduct, behavior, the delusions, and the sense falsifications thus cease to be symptoms of any special disease process, but take their true position as part of a particular mode of meeting some situation of adaptation. This is the situation as it appears to the patient, and not necessarily as the onlooker perceives it.

The factors which must be considered in teaching concern not only the condition of the nervous system, but also that of the whole body. The selection of the reaction of any given situation depends, in the first place, on the adequate functioning of the various sense organs in the collection of information concerning the facts to be faced. It becomes necessary to study all of these associative mechanisms or modes of meeting situations with which the individual is confronted. The study of these situations and reactions should be followed and interpreted so that the student is thus able to group the fundamentals of mechanisms—what adjustments mean; what adaptation really is—and thus learn to know not only herself, but her patients. Applied knowledge of this kind is by no means for the patient alone. It should be applied first to the nurse or physician who is to deal with patients. It is a moral and professional duty for the physician and nurse to study themselves in order to clear their minds from their own unconscious interferences. The unconscious, as Jung says, is unknown, even to the most frank and honest person.

It is only by psycho-analytic processes that the physician and nurse will remove the blindfolds which stand in the way of their usefulness. The complexes of human beings build character, define personality and determine conduct. It may mean a readjustment, a re-education of personality, for nurses or physicians to adapt themselves properly to the calling which they have chosen. No nurse or physician should forget that to be of service in practice, the chief requirement is personal freedom—moral independence. The study of nervous and mental diseases, from the standpoint of modern psychology will give this. Wonderful advancements have been made in this field during the past decade, and the modern, well-trained nurse and physician must have at least fundamental knowledge of these principles.

I beg leave to summarize my suggestions in a provisional curriculum suitable for training schools in our general hospitals:

1. A study of the anatomy and physiology of the nervous system.
2. A study of psychology in its applied forms—associative reactions, etc.
3. A study of the individual. As Cabot says, "concentrate upon the individual."
4. Clinical studies and observations of cases in the wards or dispensary.
5. A development of interest (depending on disposal of time and individual capacity of pupil nurses) in social service and all that it means, in the problems of life, in mind and conduct.

Perhaps you think I have a formidable task laid out for the pupils, for the directors and for the attending staff in general hospitals when I suggest the many-sided activities necessary to a full comprehension of nervous and mental disorders. I do not think so; it means adaptation to the work in hand which the modern physician and nurse must understand.

Dr. Crile, in working out his surgical problems, found himself in the realms of the psychologist. His "kinetic theory" should be known and understood by every nurse, if she is to interpret what she sees. The nurse and physician are justified in excursions into other realms of knowledge, especially those dealing with human conduct.

I am not seeking to make alienists, but students of human conduct, better personalities, that better service may be given the individual patient.

It is said that an alienist studies everything but psychiatry and analyzes everything but the patient. Let me say that while an alienist is not without honor save in the wards of a general hospital, he necessarily is bound to leave his own field and solve for himself his own special problems in the sciences.

In this way and this way only can he do justice to his work, his field of service and the promotion of the science of medicine.

With a view of possible needs in caring for wounded men the Navy Department at Washington is collecting data regarding the capacities of public and semi-public hospitals in various parts of the country.

OLD BUILDING RECONSTRUCTED INTO AN EXCELLENT CHILDREN'S HOSPITAL

The A. Jacobi Department for Children of the German Hospital, New York, Contains Essentials for Modern Scientific Care of an Exacting Class of Patients—Block Type and Cubicle Divisions

By A. L. GOODMAN, M. D., Visiting Physician

THE A. Jacobi Department for Children of the German Hospital is situated on the southwest corner of 77th Street and Lexington Avenue, New York City. It was formerly the hospital for the private patients of the German Hospital; this fact I mention because we had to take into consideration the fact that we were dealing with the remodeling of the shell of an old building and could not incorporate some of the ideas which we should have done had we been building an entirely new structure.

To describe in detail the construction of the building will, I am sure, give but a poor impression of the appearance of the hospital. It must be seen to be appreciated, for I believe that it is about as perfect an institution for the care and treatment of infants and children as exists here or abroad.

The building is oblong in shape with its axis pointing east and west, separated in its entire length by a long corridor with the rooms on both sides.

The basement belongs to the administrative uses of the institution and consists, as you will notice on the plan, of a kitchen, scullery, stores, anteroom, dining room for the chef and his assistants, and bedrooms for their use.

Fig. 1. The A. Jacobi Department for Children, German Hospital and Dispensary, New York.

Before discussing the medical features of the building I would like to state that in constructing an institution for the care of children, we must bear in mind that it is our duty not only to treat the children placed under our care, but to protect them from infection within the hospital itself. With this end in view we have adopted a modified unit system throughout the institution and have established, on the first floor, in conjunction with the administration rooms, a quarantine division.

From the plan of the first floor, you will see that the entrance to the building is on the side street. On entering the institution, to the right is the administration office and across the hall the waiting room; next, the doctors' room and the examination room for the admission of patients; then the nurses' room and pantry. The communication to this, the administrative section of the building, is separated from the quarantine and admission wards of the hospital by a glass door, so as to shut it off entirely from the outside passage and from inquisitive strangers. The quarantine division is again separated, as you will notice on the plan, by another glass door which divides it into two units, consisting each of three separate rooms and bath; these rooms, as well as all other units in the building, are separated by plate glass partitions which enable the nurse in charge to have full view of the various units, which would be impossible had the walls been made of opaque material. This not only makes it easier for the nursing staff, but I believe it to be of great benefit to the children to see one another from one room to the next, without the possibility of contagion to which they would be exposed in a larger ward. The next three rooms of this quarantine division are used for the general admission of patients. If any case is observed that gives the impression of a

sible infectious disease in its incipiency, it is at once removed to the other unit in the quarantine division, and kept there for further observation completely isolated from the general admitting unit. Should any infectious disease develop it is at once transferred to the regular institution of the city, as no case of infectious disease is admitted or treated in our institution. All cases, medical or surgical, are kept in the general isolation wards for a period of from one to three days, during which time the routine examinations are

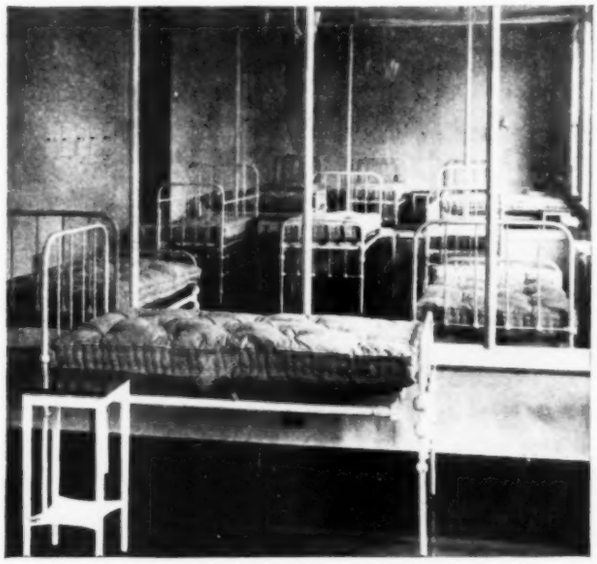

Fig. 2. The A. Jacobi Department for Children, German Hospital, New York. A ward.

made, and when it is considered safe the child is transferred to one of the general wards on the upper floors.

The general wards are situated on the second and third floors and consist, as you will notice on the plans, of four large rooms, each with wash basin and bowl and running water, separated from the fifth room at the end of the oblong. This separate unit is a sound-proof room where noisy or delirious cases are sent and where contagious cases, such as typhoids, are placed, because of the adjoining toilet which contains a separate compartment with steam sterilizer for the sterilization of bedpans, etc. In the walls in each room, which are indicated on the plans in little white subdivisions, are 12x12-inch compartments; each of these has a glass shelf at the height of 6 inches and closed by a metal door; these contain all the necessary articles used by each child, such as cup, toothbrush, thermometer, pus basin, wash basin, etc., these compartments are numbered and correspond to the number fastened to the foot of each bed in each room. Besides these wall cappings in each bath room there is a rack, with a corresponding number, on which are hung the towels, wash cloths, etc., so that no child, during its stay in the hospital, ever uses any article but its own. In the bath rooms there are also small toilets and bowls for those children well enough to be about; these are separated entirely from the toilets for the nurses' use. Each crib in the institution has a movable mattress and spring which may be raised to the upper level of the stationary sides, so that in making rounds it is not necessary to lean down or over the patient, but the child is brought up to the level of the stationary side.

If you will look at the plans of the second and third floors you will notice that by means of the glass partitions which separate the three large rooms, as stated before, the nurse, situated at any part of this floor, has an unobstructed view of all three units.

Since the opening of the division, I have had ample opportunity to confirm what I have stated previously, that these glass partitions also enable the children to see one another and enjoy each other's company to a certain extent, although not in the same room.

The second and third floors have each a playroom, located at the extreme end of the hall,

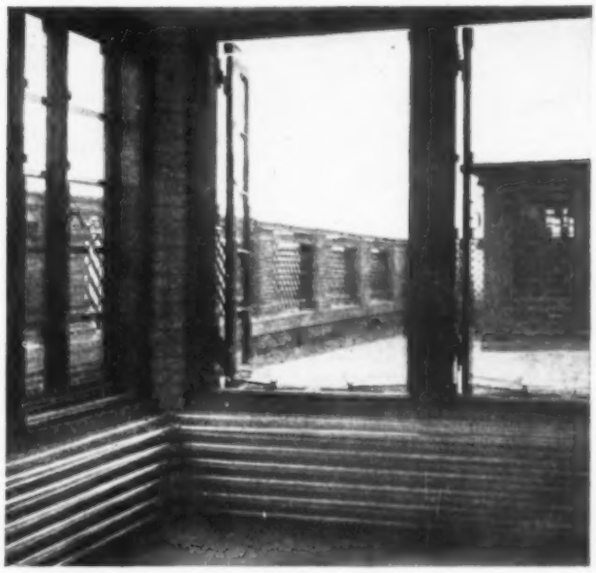

Fig. 3. The A. Jacobi Department for Children, German Hospital, New York. Sun parlor on roof

where those children well enough to be up are kept out of the general ward, so that they may not annoy those who are too ill to be about or who must be kept quiet. No child is permitted to play or walk in the rooms or corridors.

Each bed has over a thousand cubic feet of air, which is more than that required by the state board of health. In all the ward units there are base plugs for the use of electric apparatus, which make it possible to bring the necessary instruments to the bedside; so doing away with the

necessity of moving the child to the instrument. In the pantry on each floor is a large, white-enameled, stationary icebox, equipped with an air-cooling apparatus, with proper provision for the reception of milk and other articles. Next to this icebox is a smaller box or compartment

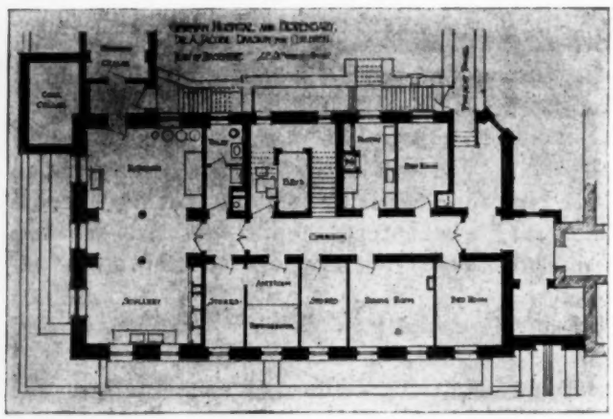

Fig. 4. The A. Jacobi Department for Children. Basement plan.

for the reception of cracked ice to be used in ice-bags etc. There is also a dumbwaiter shaft with a dial, showing at what floor the dumbwaiter is to be found. This dial obviates the necessity of putting the head in the shaft to locate the dumb-waiter, which has often caused serious accidents. We have also equipped the hospital with a clothes chute, lined with white enamel, which extends

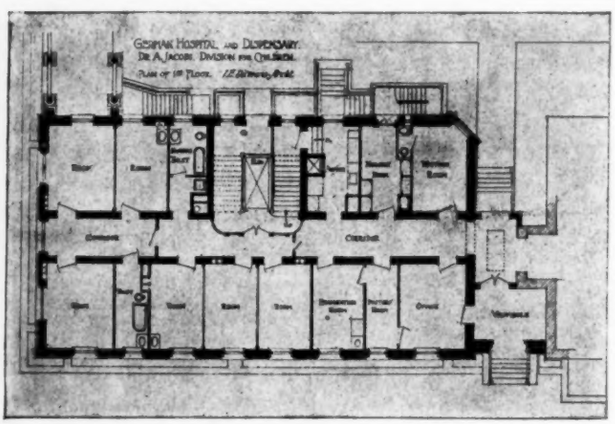

Fig. 5. The A. Jacobi Department for Children. First floor plan.

from the roof to the cellar; arrangements have been made in the cellar, where the chute ends, for flushing it. This clothes chute does away with the annoyance of having the soiled linens, etc., carried from one floor to another or on the elevator.

The fourth floor of the building is to be used for private rooms where parents may bring their children and stay with them if they so desire. On this floor, there is also a fully equipped laboratory, where all the clinical examinations are made.

The fifth floor consists of an operating room and the nurses' quarters.

Between the fifth floor and the roof garden is a sort of mezzanine floor, in which are kept the clothes of children in the hospital. These clothes are first sterilized and then placed in compartments in the store rooms.

On the top of the building we have placed a large roof garden covering its entire area. It has two

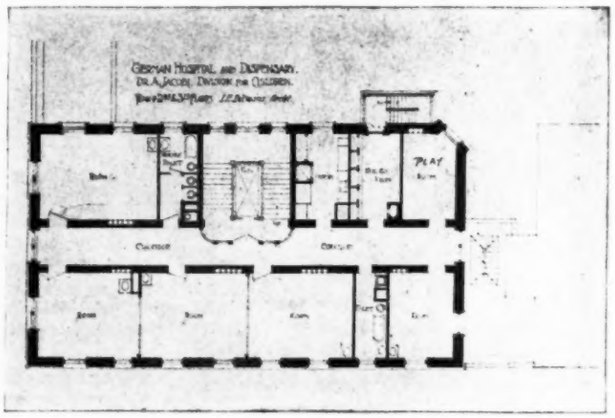

Fig. 6. The A. Jacobi Department for Children. Plan of second and third floors.

spacious sun parlors with exposures to all four points of the compass and is entirely surrounded with glass windows, a large door opening out on to the roof proper. The roof has a large stone coping with iron latticework and is so constructed that the children cannot climb up or on it, no matter how agile they may be. The sun parlors will be used as play rooms or treatment units, as the necessity arises. The roof garden is equipped with

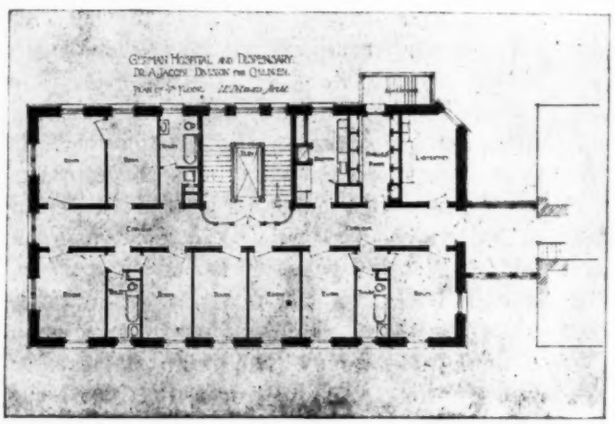

Fig. 7. The A. Jacobi Department for Children. Fourth floor plan.

nurses' quarters, medicine chest, toilets, etc., and also has a service room with icebox, dumbwaiter, clothes chute, as the lower floors have, so that if it becomes necessary in the summer time or at any other time of the year to keep the children on

this floor it can be utilized just the same as the other working units of the hospital.

I would like to call attention to the plan of each floor, showing the elevator and stairs enclosed from the rest of the building by glass door partitions, cutting them off from the hospital proper.

There is a large, roomy fire-escape extending

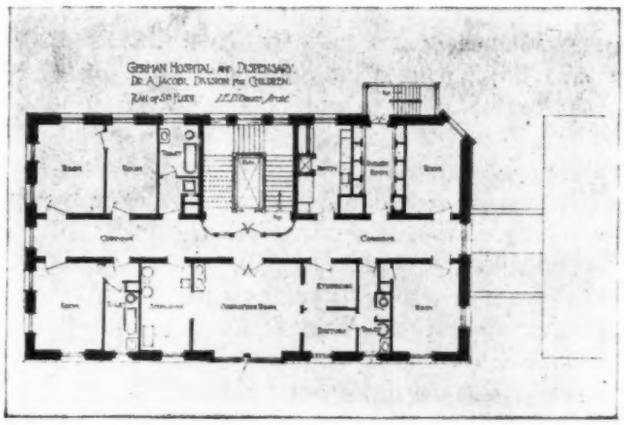

Fig. 8. The A. Jacobi Department for Children. Fifth floor plan.

from the roof to the ground floor; access to it is through the pantry on each floor, the doors having a patent bar lock which can be pushed open with the slightest touch of the finger.

The hospital equipment (beds, tables and furniture of all kinds) is finished, wherever possible, in white enamel. The walls of the building are painted with oil paint in a shade of French gray and the floors are made of hard wood.

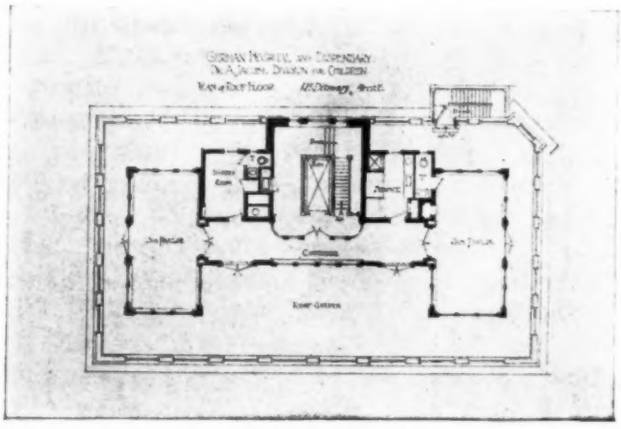

Fig. 9. The A. Jacobi Department for Children. Roof floor plan.

The visiting days to the hospital are Wednesday and Sunday afternoons from two to four o'clock. Each child is allowed two visitors, this privilege usually being restricted to the parents. No juvenile visitors are admitted to the institution. Every person entering the hospital, whether a physician in charge, or a visitor, must wear a gown furnished by the institution during his or her stay. No food is allowed to be brought in by visitors.

The hospital has fourteen beds in the quarantine division, twenty-two beds each on the second and third floors and provision for the accommodation of eight private patients.

It is our intention, if we can secure the funds, to establish a well equipped social service department in conjunction with the institution and to provide convalescent children with a modified kindergarten instruction.

There has already been established in conjunction with Columbia University a course of bedside instruction in pediatrics.

In the course of time we hope to be able to establish a department for trained infants' nurses and for post-graduate instruction in pediatrics for both the doctors and nurses.

Trusting to our earnest endeavors and the active cooperation of the public in general and our friends in particular, we hope for the speedy realization of the aims we have in view.

A New Complaint

A German, whose wife was ill at a hospital in Brooklyn, called the first evening she was there and inquired how she was getting along. He was told that she was improving.

Next day he called again, and was told she was still improving. This went on for some time, each day the report being that his wife was improving.

Finally, one night when he called he was told that his wife was dead. Seeing the doctor, he went up to him and said, with a world of sarcasm in his voice:

"Vell, doctor, vat did she die of—improvements?"—*The Medical Pickwick.*

Policlinico, in Rome, Receives Large Bequest

The recent announcement that the late Princess Vicovaro, who was Eleanor Spencer, of New York, has left a large fortune to the Policlinico, the most important hospital in Rome, is said to be of greater interest to the Eternal City than anything else outside of the war. Such munificent bequests are rarer in Italy than in America, and particular gratitude is felt because the Princess, being an American, might quite well have left her gift to her native country. The Policlinico is a magnificent modern hospital, wherein is found the best medical talent of Italy, but it has always been hampered by the lack of funds, as it is somewhat large for the modest means of a city like Rome. This bequest will enable it to become the best institution of the kind in Italy, and perhaps of all south of Vienna.

It was recently stated in England that if Kitchener had called for 500,000 nurses instead of 500,000 men for military duty he would have had the full number next morning. About the same time Lord Knutsford, in a letter to the London Times, declared that untrained nurses would be more acceptable if they would be photographed less, wear their uniforms more modestly, talk less in public about their patients, and not be quite so aggressive.

FOODS THAT ARE MARKETED IN SMALL PACKAGES[1]

Advantages: Cleanliness, Security Because of Makers' Reputation, Notice of Adulterations on Labels and Convenience in Handling by Housekeepers; Disadvantages: Increase in Cost, Misleading Containers—Reasons Discussed

By JOHN PHILLIPS STREET, Chemist Connecticut Agricultural Experiment Station, New Haven, Conn.

ALL beverages, all very moist or liquid foods, as well as food products which are preserved for transport and storage by "processing" or sterilizing, are necessarily enclosed in packages of some sort. Other kinds of food products, for which closed retail packages are not so necessary, are being sold more and more commonly in this way. The containers may be of glass, tin, wood, porcelain, stone, cardboard, or simply moisture-proof paraffined paper.

ADVANTAGES OF PACKAGE FOODS

The sale of foods in package form has many advantages. The most obvious of these is the protection from contamination by flies, animals and human manipulation, and by the dust and dirt of shop and street. In the ideal store this advantage would not be so striking, but in the average shop more or less infested by flies, frequented by cats and dogs, tenanted all too often by rats or mice, and served by attendants rarely immaculately clean and not always disease-free, a closed food package is of the greatest importance. Moreover, this condition in many cases obtains in the home or public institution quite as much as in the retail store.

A sealed package gives the buyer a reasonable assurance that he gets the food just as it left the factory. This is particularly important in the case of those manufacturers who claim specially clean factories and sanitary methods of packing by clean and healthy operatives. Many of our manufacturers have built up a high reputation for their goods, and the selling of these foods in package form, while incidentally an excellent advertisement for the manufacturer, also enables the purchaser to secure the particular brand he wishes and be assured of its integrity. Incidentally this shows still another advantage of purchasing foods in package form, namely, the encouragement to buy by brand names. The consumer who orders by telephone a "can of peas," or a "quart of vinegar," or a "bottle of vanilla extract," generally receives the particular peas, vinegar or vanilla extract which the dealer can sell at the greatest profit. If such a consumer receives foods of an inferior grade he has no one to blame but himself. Let us suppose that Jones has made himself famous for the excellence of his canned peas, that Smith's vinegar is surpassed by none, and that Brown's vanilla extract is of unusual delicacy. If the consumer will insist upon these particular brands of peas, vinegar and vanilla extract, he will aid himself by securing products of unusual excellence; he will encourage the manufacturer to maintain his high quality, and he will demonstrate to the dealer the importance of selling products of established character. Package foods are a most important factor in this intelligent method of purchase.

The sealed package in great measure protects against substitution on the part of the dealer. If the consumer wishes Smith's vinegar, the labeled package prevents him from unknowingly receiving Wilson's, Peter's, John's, or some other "just as good" brand. In other words, he is given the opportunity of knowing he receives just what he asks for.

Another important advantage of the purchase of foods in package form is shown in the case of foods which might be legally labeled in the large original container, but which are in no sense "pure" foods. A barrel of vinegar might be labeled "colored with caramel," a box of macaroni "Italian style, artificially colored," a bag of rice "coated with glucose and talc," or a barrel of molasses "contains sulphur dioxide," and yet it is exceedingly doubtful if, when any of these foods are sold "loose" to the consumer, he will be advised by the dealer of their compound character. In these days of rigid food inspection the manufacturer would scarcely dare to withhold this information from the purchaser of his foods in the form of small packages.

Under the Federal law and under the laws of most of the states, package foods must bear on their label a true statement of the net weight or volume of food they contain. The consumer is thus enabled to know just how much of the particular commodity he is receiving, and the large bottle partially filled, and the imposing carton often out of all proportion to the amount of food it contains, lose much of their opportunity to deceive the unwary purchaser. A "pint" bottle with deeply concave bottom and tapering top labeled "12 ounces," the extract bottle of two-ounce size,

[1] This is the fifth in a series of papers on Foods; in July and August, "Meat Extracts." These papers will be continued from month to month, covering most important topics on foods.

with sides so deeply paneled as almost to touch, labeled "one ounce," and the breakfast food carton made imposingly large to receive the "valuable piece of china or glassware" given away with each package, no longer should deceive the intelligent consumer if he avail himself of the protection the law affords him in requiring an honest label. This statement of weight on the label also protects the consumer from dishonest manipulation of weights or measures on the part of the dealer, a practice alarmingly prevalent.

Aside from the above considerations package foods offer further advantages to the dealer in saving him time, trouble and loss. Furthermore the attractiveness of many of the food packages adds greatly to the appearance of his store, and by this very attractiveness tempts consumers to buy. To a certain extent also the sealed package tends to standardize prices, a protection to the dealer and consumer alike.

Lastly, foods in small packages are a great convenience to the consumer, especially to those with limited storage facilities. The average city flat has little space for a barrel of sugar, a tub of butter, or a half-barrel of flour. This doubtless is unfortunate from the standpoint of strict economy, but it is "a condition, not a theory, that confronts us."

DISADVANTAGES OF PACKAGE FOODS

Unquestionably, as a rule, the sale of food in small packages increases the cost of the food to the consumer. Generally the consumer pays for the attractive and somewhat expensive containers, either by an increase of price per unit of quantity or by decreased quantity at the standard price. In spite of the denials we hear so frequently, it would seem that the consumer must bear a large part of the cost of advertising these package foods. The writer once heard a prominent food manufacturer admit on the witness stand that he spent one million dollars annually in advertising his two brands of breakfast foods and his coffee substitute. Certainly this large expenditure must have been reflected in the price the consumer paid for these preparations. This item of cost is, in the writer's judgment, the chief serious indictment against this modern method of purchasing food. The force of this indictment, however, varies with the kind of food and the purpose of its purchase.

Package foods may in general be grouped into three classes. First, those obtainable in no other way, such as canned vegetables, certain canned meats and fish, certain relishes, condensed milk, wines and liquors. The growth of the canned vegetable industry is of the greatest economic importance to the nation, enabling as it does the manufacturer in time of plenty to store up for future use millions of cans of healthful, nutritious and appetizing food. Moreover, many of the foods of this class are amazingly cheap, but even here the universal rule applies, namely, the larger the container the cheaper the food.

The second class includes those foods which might, and in many cases should, be prepared at home, such as canned fruits, ketchups, jams, jellies, preserves, pickles, soups, mince meat and baking powder. The housewife is delegating more and more to the manufacturer her function as a producer of food. It may be that club life, church work, philanthropic activities, even bridge, may offer the modern woman wider fields of usefulness than the home preparation of food. It may be that the art of cooking is a lost art in the average home, and that in the rush and hurly-burly of modern life the average woman has not the opportunity, facilities, or perhaps the ability, to prepare or superintend the preparation of food at home. Whatever may be the reason for this constantly decreasing production of food in the home, the fact remains that it is one of the vital factors in the increasing high cost of living.

The third group includes those foods which one might better purchase "loose," such as certain breakfast foods, crackers, molasses, vinegar and dried fruits. The writer freely admits that where quality alone is to be considered the purchase of even the foods of this group in package form is not to be condemned, but the consumer of limited income has no more economic right to buy crackers, for instance, in small packages than he has to buy champagne, caviar, pate de foie gras, or a hundred other similar luxuries. On the other hand there are cases where the daintiness and attractiveness of the food are of prime importance. In the sick room, where frequently the appetite must be coaxed, these qualities are essential and this is especially true with pay hospital patients, where the most rigid economy is not required. But even here it is a question whether more emphasis should not be placed on the culinary skill of the cook, and whether less should not be left to the taste and imagination of the food manufacturer.

A disadvantage of the sealed package, although a minor one, is that in nontransparent containers the purchaser cannot see the food before buying—a serious objection in the case of such foods as breakfast cereals and dried fruits—which are not infrequently infested with insects. Of course any reputable dealer will replace such contaminated food, but the trouble and delay such an exchange entails is always annoying.

The size of the container often deceives the

buyer as to the amount of material he is buying. Bottles with deeply concaved bottoms or paneled sides, and breakfast food cartons, especially of flaked foods, are likely to be quite deceptive. A recent examination by the writer of about 2,000 packages of foods revealed the fact that many of them were sold in packages containing net weights of odd amounts. For instance, potted ham, 6.5 and 10.5 oz.; peanut butter, 7 oz.; condensed milk, 6 and 14.5 oz.; biscuits, 2.75, 5.25, 6.25 and 14 oz.; corn flakes, 10.5 oz.; rolled oats, 22 oz.; and mince meat, 10 oz. It hardly seems likely that trade exigencies demand these fractional weights, but the size of the package often leads the consumer to believe that he is receiving more of the food than is actually the case; that is, an even pound or fraction of a pound. Rolled oats, for instance, used to be sold in two-pound packages; at the present time it is generally offered in 22-oz. packages, but with a price no lower, if not higher, than when ten ounces more were delivered. Furthermore, it must be remembered that a No. 1 or No. 2 can of corned beef, for instance, does not mean one or two pounds of the meat, but 12 or 24 oz. The significance of these can sizes will be discussed in a later paragraph. The weight of the container is also frequently included in the alleged weight of the product. This practice is quite general with dried fruits, such as raisins, currants and prunes, "pound" packages of which usually contain 14 or 15 ounces net.

The requirement of the law as to a statement of net weight or volume, however, will probably in the near future do much to correct these abuses. The purchaser, if he reads the label, will know just how much food he is obtaining in any particular package. For instance, he will learn that the small box of cocoa containing one-fifth of a pound of cocoa and offered to him for ten cents is actually more expensive than the one containing one-fourth of a pound and costing 12 cents, although apparently they may be about the same size. He will learn that in a 25-cent bottle of flavoring extract he is obtaining more than 2.5 times as much as he would secure in a 10-cent bottle of the same brand. He will learn how much more expensive is the 2-oz. bottle of olive oil at 15 cents than the 4-oz. at 25 cents, or the 8-oz. at 40 cents. He will learn that the fruits he buys, thinking they weigh a pound, usually weigh only 14 or 15 oz. at most; that the attractively cartoned crackers, which look like a half pound, weigh only 6.5 oz.; that the bottle of vinegar, cider or whisky, often sold as a "quart," actually contains only one-fifth of a gallon.

The consumer, however, must clearly understand the limits to the usefulness of the information afforded by a statement of net weight or measure. Many foods, like canned vegetables and fruits, are, and must be, packed with more or less water, which is either natural to the product or is directly added. The weight of a can of vegetables, therefore, gives no information as to the quality of the vegetable or the relative amounts of solid and liquid contained in the can. One can may show a greater net weight than another and yet contain actually less of the vegetable or fruit in question. The statement of weight, therefore, conveys no further information than the amount of material, both solid and liquid, in the can. The following figures, obtained by the writer in examining canned vegetables and fruits, illustrates this point: different cans of canned peas weighing 22 oz. net contained from 27 to 50 percent of liquor; tomatoes weighing 32 oz. net, from 45 to 80 percent of liquor; string beans. weighing 20 oz. net, from 38 to 58 percent of liquor; and peaches weighing 32 oz. net, from 36 to 48 percent of liquor. The significance of the net weight of canned vegetables, canned fruits and similar products can be learned only by experience. The consumer will soon find out which manufacturers are packing their products honestly, and then by insisting upon those particular brands he will be assured that he is not purchasing inordinate quantities of water under the guise of food.

In this connection a word may not be amiss as to the significance of can sizes. Frequently consumers, and even dealers, are confused as to the meaning of No. 1, No. 2, No. 3, etc., when applied to canned vegetables and fruits. In the past when the consumer purchased a can of peas or corn marked "2," he believed he was getting two pounds of the vegetable, whereas in fact he received only 20 to 22 oz. The trade no longer leads the purchaser to believe the can number indicates the weight of the food it contains. The various can numbers have a definite meaning to the trade as to the measurements of the can, which are reasonably uniform even with different manufacturers. The amount of food packed in the various sized cans of course will vary more or less with the kind of vegetable or fruit. With canned vegetables a No. 2 can will contain from 20 to 22 oz., a No. 3 from 32 to 36 oz., while with fruits a No. 2 can contains from 10 to 14 oz., a No. 2½ from 14 to 20 oz., and a No. 3 from 18 to 25 oz.

In the last three years the writer has carefully determined the net contents of several thousand packages of food, and a summary of these findings is given in Table I. These will indicate the variations in weight likely to be found in packages of the same size for the different foods that are enumerated.

TABLE I. NET WEIGHT OF FOOD PRODUCTS IN VARIOUS SIZED CONTAINERS

Material.	Range in Net Weight. oz.	Average Net Wgt. oz.
CANNED FRUITS		
Apples, No. 3	16.9-22.6	20.1
Apricots, No. 2½	16.8-20.0	18.8
Cherries, No. 2	9.9-15.4	11.9
Cherries, No. 2½	16.6-21.8	19.1
Peaches, No. 2½	15.8-22.4	19.7
Pears, No. 2	9.9-14.9	12.9
Pears, No. 3	17.9-25.6	20.3
Pineapple, No. 2	10.3-15.2	13.7
Plums, No. 2	8.8-13.3	11.6
Plums, No. 2½	13.3-18.0	16.3
DRIED FRUITS		
Apples	11.0-15.3	13.4
Apricots	13.9-15.1	14.5
Currants	11.0-16.2	14.4
Dates	9.2-16.1	11.9
Figs	10.6-14.7	12.8
Prunes	11.9-15.4	13.5
Raisins	10.6-16.3	15.1
CANNED VEGETABLES		
Beans, No. 2	18.5-22.0	20.4
Pork and Beans, No. 2	21.8-22.8	22.3
Corn, No. 2	19.8-21.8	20.9
Peas, No. 2	19.6-21.9	21.2
Pumpkin, No. 3	31.6-37.7	36.0
Spinach, No. 3	32.9-34.0	33.4
Succotash, No. 2	19.3-21.6	20.8
Tomatoes, No. 2	17.8-21.0	19.5
Tomatoes, No. 3	31.0-36.4	33.3
CANNED FISH		
Clams	14.9-16.4	16.1
Fish Flakes	7.2-10.1	8.5
Herring	16.2-18.8	17.5
Salmon, No. ½	7.6- 8.1	7.9
Salmon, No. 1	14.4-15.9	15.3
CANNED MEATS		
Sliced Bacon	8.9-10.1	9.7
Sliced Beef	8.0- 8.8	8.3
Corned Beef, No. 1	11.7-12.3	12.1
Corned Beef, No. 2	23.4-24.8	24.2
Boned Chicken, No. 1	12.8-14.1	13.6
Potted Ham, No. ¼	3.6- 3.9	3.8
Potted Ham, No. ½	5.1- 5.5	5.4
Tongue, No. 1	11.9-13.2	12.6
MISCELLANEOUS FOODS		
Bread, 5-ct. loaf	11.4-19.7	14.0
Biscuits and Crackers, 10-cent	1.9-10.0	5.5
Biscuits and Crackers, 25-cent	2.7-14.5	7.8
Macaroni, 1-pound	13.4-16.3	15.4
Noodles, ½-pound	7.2- 8.5	7.9
Corn Flakes	8.7-11.1	9.7
Rolled Oats	22.0-23.9	23.3
Peanut Butter	6.7- 7.2	7.1
Preserves	12.7-14.3	13.5
Chili Sauce	8.3- 9.3	8.8
Chow-Chow	8.4- 8.8	8.6
Sweet Pickles	7.6-10.8	9.1
Cocoa, 3.2-oz.	3.1- 3.6	3.3
Cocoa, 8-oz.	7.3- 9.0	8.1
Chocolate, 4-oz.	3.8- 4.1	4.0
Chocolate, 8-oz.	8.0- 8.6	8.2
Ginger, 4-oz.	3.9- 4.3	4.0
Mince Meat, 10-oz.	10.9-11.8	11.4
Rice, 16-oz.	15.8-16.4	16.1
Meat Extract, 2-oz.	1.7- 2.4	1.9
Honey, 10-cent	4.5- 8.8	6.4
Honey, 25-cent	11.6-17.0	14.8
*Olive Oil, 4-oz.	3.7- 5.3	4.5
*Olive Oil, 8-oz.	7.1- 9.0	8.1
*Olive Oil, 32-oz.	30.5-33.3	31.7
*Vanilla Extract, 1 oz.	0.9- 1.5	1.1
*Vanilla Extract, 2-oz.	1.5- 2.5	1.9
*Vanilla Extract, 4-oz.	3.6- 4.3	4.0
*Lemon Extract, 1-oz.	0.9- 1.6	1.3
*Lemon Extract, 2-oz.	1.5- 2.8	1.8
*Lemon Extract, 4-oz.	3.5- 4.2	4.0
*Miscellaneous Extracts, 1-oz.	0.9- 1.4	1.1
*Miscellaneous Extracts, 2-oz.	1.7- 2.6	2.0

*Statement of volume in fluid ounces.

As stated above, in products like vegetables and fruits, the relation of solids to liquid is important. Table II gives certain data obtained by the writer in this connection.

TABLE II. VARIATION IN DRAINED SOLIDS IN CANNED VEGETABLES AND FRUITS

	Size.	Percent Drained Solids.	Percent Sugar in Liquid.
Beans	2	42-74	.....
Peas	2	50-73	.....
Tomatoes	3	28-57	.....
Apples	3	50-71	6.4- 8.1
Apricots	2½	52-63	17.8-27-1
Cherries	2	45-72	13.4-44.4
Cherries	2½	52-69	7.2-28.4
Peaches	2½	54-75	8.1-30.8
Pears	2	49-73	10.9-21.6
Pears	3	50-69	9.9-19.4
Pineapple, sliced	2	48-73	19.2-30.9
Pineapple, grated	2	38-52	20.7-25.4
Plums	2	41-62	15.0-20.0
Plums	2½	43-58	14.8-26.6

The above table also illustrates another complication affecting the interpretation of net weight as applied to canned fruits. It will be noted from the last column that the density of the syrups in which the fruits are packed shows wide variations. This naturally has an important influence on the cost of the product and to a considerable degree also on the quality. Unfortunately at the present time the labels on canned fruits are not standardized, and the words "packed in heavy syrup" on the label of one manufacturer may have an entirely different meaning when used by another packer. This is particularly striking in the case of cherries, where the writer found the sugar content of the liquid to range from 13 to 44 per cent.

Surgeon General Rupert Blue, of the U. S. Public Health Service, announces that most of the male orderlies in all of the large government hospitals throughout the country will be replaced by women nurses by the first of next July, the opinion prevailing that women are best suited for this work. Orderlies will be retained for certain wards where men are preferable or necessary, and as assistants about the various hospitals, but the main burden of nursing will be placed in the hands of trained women. There will be no dismissals as a result of the change. Orderlies relieved from nursing duties will be assigned elsewhere. The appointment of women nurses will be made from an eligible list obtained through competitive civil service examinations in twenty-three cities of the East and West and along the lakes where there are naval hospitals.

A recent report of the Registrar-General of England is said to show an alarming increase of infant mortality throughout that country as a result of the war. It is stated that in London alone, during the thirteen weeks prior to July 1, children died at the rate of 200 a week in excess of the number dying in the corresponding weeks of last year. Shortage of physicians and nurses, the closing of many day nurseries and the averseness of the public to giving money for any purpose but the war are held to be responsible.

PAINLESS CHILDBIRTH AND THE HOSPITAL

Nitrous Oxide and Oxygen in Use for Years—Not to Be Replaced by Scopolamine—Morphia—Latter Has Restricted Place in Hands of Experts Only

By CARL H. DAVIS, M. D., Associate in Obstetrics and Gynecology, Rush Medical College; Assistant Attending Obstetrician and Gynecologist to Presbyterian Hospital, Chicago.

IF labor is a purely physiological process it should be as free from pain as are other physiological processes. From the records of labor among the American Indians and other primitive races we know that normally their labors are easy and relatively free from pain. Englemann states that: "Commonly labor is conducted most privately and quietly; the Indian squaw is wont to steal off into the woods for her confinement. Alone or accompanied by a female relative or friend she leaves the village as she feels the approach of labor, to some secluded spot. upon the banks of a stream is the favorite spot the world over; the vicinity of water, moving water if possible, is sought, so that the young mother can bathe herself and her child and return to the village cleansed and purified when all is over." But while the labor of the primitive woman was usually easy, in the presence of some pathological condition her agonies often ended in death.

But civilization with its artificial dress and customs has rendered woman more of a hot-house product, and physically less fit to perpetuate the race. At the same time the development of the brain has rendered the head of the child less suitable to the passage of the birth canal. While among the women of today easy and relatively painless labors are not rare, most women are in labor several hours and, unaided, endure considerable and often very severe pain. Yet there is no logical reason why women should suffer during labor any more than in any other surgical operation. Every confinement should be considered a major surgical operation; one more fraught with danger than is the ordinary appendectomy.

During the last half century there has been a wonderful development in hospitals. We have in every city many beautiful hospitals with thousands of beds for the medical and surgical care of men, women and children. But how many hospitals have adequate facilities for maternity cases?

Within the past year a society has been organized whose aim is: "To promote all safe and efficacious means of securing painless childbirth." But far worse than the few hours of pain, worse than the death of the mother or child is the chronic invalidism which comes so frequently from the practice of midwifery by the careless and poorly trained physician or midwife. There are many more women operated in hospitals for conditions which followed poor obstetrics than are confined in our maternities. Women must be educated to demand clean and safe obstetrics. Competent physicians will make labor easy and relatively painless.

Simpson, writing on the history of anesthetics in midwifery says: "The ancients appear also to have attempted to relieve the pain attendant upon parturition by anesthetizing agents, as we may learn from the various Greek writers. Such a practice is mentioned by Platus in his Ophelion, and I may also quote the following passage from Theocritus, who says:

"For then the daughter of Antigone, weighed down with throes, called for Lucinia, the friend of women in travail, and she with kind favor stood by her, and in sooth poured down her whole limbs an insensibility to pain, and so a lively boy, like to his father, was born!"

Since Simpson in 1847 introduced anesthetics into obstetrical practice, a large number of drugs have been employed in the attempt to secure painless childbirth with safety to mother and child. The analgesia produced by a few inhalations of nitrous oxide and oxygen was used with excellent results by Klikowitsch of Petrograd in 1880, and by Winckel of Dresden in 1881. Winckel says: "The apparatus, which consists of a rubber bag like a pillow, is inconvenient, it must be confessed, but this is entirely subordinate; in abnormally painful labor it is at any rate an extremely important remedy." But owing to its cost, the crudeness of the apparatus used, and the fact that it was often given to the point of asphyxia, nitrous oxide did not come into use at that time.

Von Steinbüchel of Gratz first suggested the use of scopolamine and morphine analgesia in 1902. The following year he reported favorable results in a series of cases. Gauss made his first report in 1906. The method was tried by many physicians with varying degrees of success, but, until the recent visit of Gauss to America and the magazine publicity given his *Daemmerschlaf*, the use of scopolamine and morphine did not become a question of vital importance to the hospital and the physician. The method has been used in several thousand cases, and in the hands of the most skilled the results have been satisfactory in from

85 to 90 percent of cases. However, those who have had the largest experience are agreed that this method can be used only by the obstetrical specialist; it should be used only in a hospital which has a delivery room protected from all noise and confusion; the physician must have had a large experience with the drugs; a physician must be in constant attendance; the cases should be selected; the action of the drugs is uncertain; the patients are at times very hard to control, and failures are to be expected in not less than 10 percent of the cases subjected to the treatment. ment.

Some ten years ago Dr. J. C. Webster, of Chicago, began to use nitrous oxide and oxygen in operative obstetrics as a substitute for ether and chloroform, in cases where their use was contraindicated. Gradually he extended its use to all cases of operative obstetrics, and as a substitute for ether during the normal deliveries. Since July, 1913, the members of the obstetrical staff of the Presbyterian Hospital have used the nitrous oxide-oxygen analgesia during the entire period of pain causing contractions, in a considerable number of cases. In every case a few deep inhalations of the gas have relieved the severity of the contraction. In no case has labor been delayed, but rather it has been hastened because of better assistance on the part of the mother. It gives an increased control over the patient in that there are none of the hysterical outbursts formerly seen in the delivery room. No longer are the patients in other parts of the hospital disturbed by the outcries of the expectant mother. The babies cry as quickly after the use of nitrous oxide and oxygen as when no anesthetic is used.

The actual cost of the nitrous oxide and oxygen used in maintaining analgesia during the uterine contractions will not in the ordinary case exceed one dollar per hour. The longest we have found it necessary to administer the analgesia has been about six hours. With multipara it is rarely necessary to give it more than two hours. In primipara the labor is usually terminated within three hours from the beginning of the painful contractions. In maintaining analgesia the confidence of the patient is necessary, and mental suggestion is of great value. The more intelligent the patient, the easier it is to obtain satisfactory results.

Hatcher, in his report (Jour. A. M. A., 1910, LIV, 446) says: "H. C. Wood, Jr., studied the cause of death in 23 cases in which scopolamine and morphine had been used, and he concluded that at least 9 of those deaths must be attributed to the scopolamine and morphine, the death rate being one to 250 narcoses." In speaking of the comparative safety of anesthetics Louis Frank (Am. Jour. Obst., N. Y., 1915, LXXI, 630) says: "Available statistics show that the average mortality from chloroform is one in 3,000, whereas that of ether is one in about 30,000 administrations. . . . The comparative safety of nitrous oxide was demonstrated by the researches of Buchanan, who found after careful study of statistics covering many millions of inhalations of this gas that the mortality was probably about one in 5,250,000 administrations."

More and better maternities, with obstetrics practiced only by clean physicians on a scientific and surgical basis, is the great need of today.

We concede that it is easier to carry a hypodermic needle than a gas apparatus, but while the *Daemmerschlaf* may be used for selected cases in an especially equipped hospital, by a staff with a large experience in its use, the nitrous oxide-oxygen analgesia may be used safely and efficiently by every physician who is capable of practicing obstetrics. Drugs act differently, people have their idiosyncrasies, the hypodermic injection of scopolamine and morphine is beyond recall, but in the use of the nitrous oxide-oxygen analgesia we have eutocia without danger to mother or child.

A committee appointed to investigate conditions at the New York City Hospitals and Schools on Randall's Island has recommended the following improvements: the immediate erection of a modern 200-bed hospital for helpless children, to cost $200,000; a unit cottage with a capacity of 100, with facilities for both living and education, estimated cost $50,000; living quarters for attendants, to cost $100,000; the repairing of an old building, including the installation of electric lights and new plumbing, at a cost of $150,000; and the expenditure of $50,000 for new equipment in the way of sewing machines, toys, educational aids and playground improvement. Both Mayor Mitchell and Controller Prendergast have expressed themselves as being in favor of the appropriation of funds to carry out the recommendations of the committee.

Miss Helen Scott Hay, formerly of Chicago, and for ten months supervising nurse in the American Red Cross contingent stationed at Kiev, Russia, is now in Sofia, Bulgaria, where she has gone at the request of Queen Eleanore to assist in establishing a model training school for nurses. Trained in nursing herself and an enthusiastic Red Cross official, Queen Eleanore has long wanted to provide adequate facilities for teaching nurses in her country. In fact, she made arrangements over a year ago for Miss Hay to take up the work, but at the outbreak of the war the latter was assigned to duty with one of the Red Cross units made up at Chicago.

Plans drawn by Architect Leon E. Dessez for the proposed new municipal hospital for Washington, D. C., call for twelve buildings, with a combined capacity of 300 beds.

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Admission of the Patient

After all is said and done, efficiency in the hospital contemplates the care and cure of sick people. Efficiency in the physical management will permit more and better work to be done, hence more sick people can be cared for and cured, because of various economies that may be practiced, and more orderliness in the scientific operations.

But the medical work is the thing for which the hospital is built and maintained, and upon the hospital's management of its part of the medical work will depend the whole character of the institution.

The medical staff may be composed of the best men in the community; they may be heart-whole in their faithfulness; they may be progressive and energetic; but unless their orders can be carried out effectively, their good work will go for little or nothing.

Staff men can only give orders; they are not present all the time to see that they are executed, hence the character and competence of their assistants are of the greatest moment.

This train of thought leads us to the intern and his status in the hospital, his duties, his responsibilities. This is not a homily on the intern; it is merely intended to call attention to one particular part of his work, namely, the admission of patients.

Every patient arrives in the hospital on one of three impulses: either he is sent in by a medical man as a private patient, by some one or some organization interested in him, or he arrives at the public admission rooms because he is sick and has no doctor.

However the patient arrives, there is something to be done for him at once, and it should be done intelligently. If a doctor has sent him in, and if the doctor is in touch with the activities of the hospital, he will usually send in a card with him, giving instructions for immediate attention, or he will call the hospital over the telephone, and give his orders. This technic takes care of itself automatically.

But the patient who comes of his own accord and without the advice of a doctor—generally the ward patient: what is to be done for him? There are no orders. Is he to lie without attention until the visiting physician's regular rounds, perhaps next morning? That is done in many hospitals, and it is wrong.

The patient should be examined in the admission room, of course, for purposes of distribution, and to insure against the admission of an acute infection, or at least against the exposure of other patients by putting such a case in the general wards.

The next step is the nurse's part; the bath, the beginning of the record, the temperature, pulse and respiration—and bed. Fortunately this part is usually efficiently carried out, because the pupil nurse corps is generally under the best discipline of any of the forces.

Then immediately the intern on the service, or the resident physician in a small hospital, should get busy. There should be a history written by somebody capable of writing it, the better and more experienced the historian, the quicker and closer will be the diagnosis. Then comes the physical examination; either the diagnosis is plain and obvious, or it is too difficult for the intern; in the former case, he should do or have done the necessary laboratory work, see about an x-ray if that seems to be indicated, and give the first nursing orders; if he cannot make a diagnosis, he should do, or order the work done, that will help toward this end, and give temporary orders; if the patient is very sick and in apparent danger from delay, and the intern cannot make a diagnosis, he should call the visiting physician at once, explain the case and get orders.

Whatever the case, and however it reaches the hospital, this technical course of handling will meet every exigency, and when the attending physician arrives on the scene, he will have before him all the data that the institution can provide to help him help the patient.

It would seem that such prompt and efficient work would be obvious; but there are hospitals in which patients are given no attention whatever, except the ordinary nursing care, until the attending physician arrives and gives his orders; then another twenty-four hours may elapse before the laboratory work and other diagnostic service is reported, and so from thirty to forty hours may pass before the patient is given intelligent attention.

Old Men on Hospital Staffs

The insistence of the Philadelphia County Medical Society, in a recent report of its Hospital Committee, that the younger men on hospital staffs be given more opportunity, and the suggestion of the retirement of the older men, seem to have occasioned a good deal of discussion in many parts of the country, and among the staffs of many hospitals.

This is a question that cannot be settled offhand; and the solution cannot be the same in all institutions. The personal equation rules here as in so many hospital problems. But there are a few general principles that can be made to apply, and which, if persisted in, will cure most of the complaints that come from hospitals which seem to be afflicted with "dry-rot," occasioned, as their administrators think, by the retention of men on the staffs after their activities are over.

Let us at once agree on the one and vital point, namely, that the doctor needs the hospital far more than the hospital needs any doctor; and the corollary that the hospital makes and builds up the doctor, rather than the other way round.

If the above premises are correct, a doctor is of value to the hospital only so long as he is able to "deliver the goods." Many famous men, who did fine work in the past, are kept on hospital staffs "for the use of their names," or because of the private patients they send in. The latter reason is a good one, as going to show that they are actually working at their profession and have patients. The former reason is no reason at all.

Hospitals nowadays are predicated on work, not on some one's reputation. They are entitled to support and patronage solely on the score of their value to the community for the work they are doing. If any doctor on the staff is not contributing toward that work, he has ceased to be an asset, and a hospital is no place for an anatomical museum—at least if there is such a place, it should be out of the way of the workers. Every doctor who is posing and marking time, or loafing, is in the way of those who would work if given an opportunity.

It doesn't seem to us that the problem is properly stated when the age of a staff member is made a factor. How would it do to divide the doctors for retention or retirement, not as old and young, but into the other two classes—those who work and those who do not?

Package Foods

Attention of the reader is specially called this month to the paper by Mr. Street on "Package Foods," to be found on other pages.

All too little attention is paid by institutional and home housekeepers to the condition of foods purchased for consumption. While we are thinking in terms of efficiency, purity and cleanliness, we have been too prone to judge of the condition and character of our food supplies by external appearance alone, or we are even content to leave the whole matter on faith to a heterogeneous number of people who must handle our foods before they get into our keeping.

Mr. Street's summary of the advantages of package foods leaves nothing to the optimistic imagination of the purchaser; he tells the whole story. *De gustibus non disputandum* is an old and true adage, but most of us would prefer our foods brought to us in sealed packages from a manufacturer who was willing and anxious to have his name identified with his product.

Even Mr. Street's mention of the probable greater cost of package foods has not quite so much significance when we think of the probable greater waste in foods bought in bulk and handed to us in flimsy paper bags, as they stand on the shelf and are shifted about the pantry or store room before they are finally used.

We are making very much these days of pure foods, and our federal government is going as far as it reasonably can be expected to go to prevent adulterations, over-watering and other harmful or expensive methods of marketing; but we owe the subject some care and precautions on our own account, and it seems to us that the best precaution we can take is to buy our foods from manufacturers who guarantee quality and cleanliness with the best asset they have, namely, their good name.

As for Mr. Street's paper: it is a most valuable exposition of a most important and much neglected subject, and we commend it to our readers for their thoughtful perusal.

"All Work and No Play—"

It is said that work never killed anyone and that more suicides come from lack of it than from any other cause. But one can easily grow stale working at the same thing from hour to hour and

from day to day throughout the year. Some people find all their recreation and rest in merely changing the character of their work from time to time.

Why is not something of this kind thought about for the benefit of hospital workers?

The Gregg Shorthand School, with branches in the principal cities, is engaged in fitting young people for the business of life. Shorthand is rather an exacting profession—at least where experts are concerned; their employment calls for concentration—intensive application over short periods. Students must be taught, not only the theory and practice of their business, but they must be taught to conserve their strength, to husband their reserve energy and to save themselves. At least that is the way the Gregg School looks at the matter.

To carry out this policy the managers have devised a scheme of recreation that should commend itself to hospital administrators.

Students are worked hard during business hours, but every week there is a regular schedule of interesting and instructive visits. In the Chicago school, for instance, Mr. H. J. Holm, the manager, takes a group of students, mostly young women, to the stockyards on one afternoon, not specially to see the slaughtering, but the visits include the manufactories of the by-products, such as buttons, that are made out of blood and bone, catgut, made from sheep intestines, the pepsin and other pharmaceutical products. Another afternoon is devoted to the board of trade, the greatest grain market in the world; still another to the Field Museum, the home of the greatest Indian exhibit in the world and one of the greatest exhibits of wild animals. Another afternoon is spent in the Chicago Public and Crerar libraries.

On an afternoon spent at the Field Museum in Jackson Park recently, the school management had a picnic supper served on the beautiful beach, and afterward the whole crowd adjourned to the White City for the evening.

The school pays for everything, makes arrangements beforehand to have experts act as guides through the institutions visited, and everybody has a fine time. Young people who have lived all their lives in Chicago are taken to places they have never visited before. All these recreative periods carry an instructive essence, sugar-coated with pleasure.

This little story is told, not as an advertisement for the Gregg schools, but to illustrate a point, namely, that hospitals would give more to and consequently get more from their nurses and employees, if they dovetailed some instructive and pleasant diversion in between the periods of straining, mind and body tiring work.

STATE CHARITIES' AID OPPOSES PLAN FOR BOARD OF CONTROL

New York Association Would Keep State Institutions Under Separate Managing Bodies

The New York State Charities' Aid Association, through its committee on constitution revision, takes a firm stand against the proposed establishment of a single board of control to take the place of the several individual boards now managing the state's institutions.

"The board of control," asserts a brief recently issued by the Association, "would jeopardize the present high standards of the care of the insane by placing the state hospitals under control of a board which, in the nature of the case, could not be expert in knowledge as to the needs of the insane, the needs of the feeble-minded, and the other charitable institutions, and the needs of the state's prisons. With such a diversity of problems to deal with, the board of control could not give sufficient attention to any one to become expert in it. As a result, the work in one or more, and possibly all, would suffer. With so many institutions of so many different kinds, the actual work of the board of control would fall to subordinates, resulting in chaos and diffusion of responsibility."

In summing up, the brief gives the following four specific reasons why, in the opinion of the committee of the State Charities' Aid Association, the establishment of a board of control would be undesirable:

"1. The present state hospitals for the insane are operating at the per capita cost of 57 cents per day per patient—an extremely low rate and lower than any other institution of the same type on record.

"2. They are operating with such extraordinary efficiency that they have established standards for practically the whole country.

"3. A study made in three states by Henry C. Wright, now Deputy Commissioner of Public Charities in New York City, proved fully that the central purchasing of food supplies for all the institutions of all kinds is ineffective to obtain lower prices for food. In fact, the prices under central purchasing are higher than under separate buying.

"4. In many of the eighteen states where the Board of Control has been established, it has proved to be a device for injecting politics into the management of institutions. The standards of care in most of them have actually deteriorated, and movements are under way in many of them for a change of system."

Chief of Police Foster N. Burns, of Tulsa, Okla., is of the opinion that every city jail should have a hospital ward. Chief Burns cites numerous instances in his experience and in the experience of the police departments of other cities where emergency hospital facilities in connection with jails would have saved lives. He mentions particularly the case of the man or woman found lying in the street and supposed to be suffering from alcoholism, when as a matter of fact the person may be seriously sick from another cause or suffering from a fractured skull. Usually such a victim, especially when discovered at night, is given little more attention than to be thrown into a patrol wagon and hustled into a cell to sober up on the cement floor of a "lockup," with the chance, as the chief puts it, of "waking up dead in the morning." According to Chief Burns, cases of this kind taken to hospitals are sometimes hastily diagnosed as alcoholism and refused admittance.

HOSPITAL ASSOCIATION MEETINGS

Papers Read at Seventeenth Annual Conference of American Hospital Association and First Annual Convention of Catholic Hospital Association—Other Papers Published in our July and August Issues

MEDICINE AND THE WORLD WAR

Surgery and the New Degrees in Science and Philosophy—A New Era in Teaching and in Hospital Management[1]

BY GEORGE DAVID STEWART AND JOHN WILLIAM DRAPER, New York.

For many years, if not permanently, the devastation of Europe will place progressive medicine in the hands of America. This change would have come soon owing to the material and intellectual resources of our continent and to the cosmopolitan character of our citizens; but the great war has achieved in a day what would normally have taken years, and has thrust upon this country the duty of fostering the growth, uprooted and ruined in Europe, of that great science which, above all others, holds out hope to man and points the way to a future and truer civilization.

With the science of medicine constantly changing and enlarging, the task of teaching, always behind the science, becomes yearly more tremendous, and curricula are more and more overloaded. The writers, realizing the impossibility of giving consideration to the whole subject, wish to direct attention particularly to surgery and manifestly to only a few phases in the development and the teaching of this science, pointing out that if progress is to be made the growth of the two should go hand in hand. For, no matter how far we advance the science, if not taught to our successors, progress will be arrested. With our accustomed load of responsibilities and the added ones which have been thrust upon us by the world calamity each new step is fraught with additional responsibilities. That we are not alone in holding this pessimistic point of view is attested by such opinions as that of the historian Eduard Meyer (quoted by Russell, Atlantic Monthly, July 15, 1915), who considers Germany as the analogue of Rome and England as the analogue of Carthage, and looks forward to a succession of conflicts like the Punic wars.

The essayists wish to consider the following general topics: (1) hospital intern systems, and teaching as it now exists, particularly in the east, with some suggestions for betterment; (2) the modification and improvement both in scientific achievement and in teaching that may be expected from the form of corporation practice best illustrated by the larger clinics of the west; (3) the effects of admitting surgery into the select company of the graduate school and consequent recognition that it is on an equal footing with other philosophical subjects—a departure taken, we believe, for the first time by New York University.

Despite the fading distinction between medicine and surgery, the student, under the present system, makes his decision promptly after graduation whether to follow medicine or surgery. Ordinarily, after having selected surgery, he will have two years' service—frequently mixed—in which to do a little laboratory work, often a little ambulance work, keep bad histories, learn no pathology, and in his last six months to do a greater or lesser number of operations. The greater the number of these the worse, as a rule, for both his future and the public's welfare. We want to emphasize the conviction that we are letting loose on the public insufficiently trained surgeons, a matter in no sense the fault of the men themselves; and, also that we can and should offer the men greater opportunities. There are many others who hold the same view, as witness the following extract from a recent editorial in one of the daily papers, in which the author, while commending the organization of the American College of Surgeons, continues:

"Aside from the professional advantages we dwelt upon the prospective benefits to a long-suffering public by the proposed guarding of the community against the numberless raw recruits who increase the army of surgeons and pseudo-surgeons, especially in the smaller cities and towns.

"The loss of life and mutilation of limb resulting from this surgical invasion are incalculable; and it is a harrowing reflection for those who are familiar with these conditions to recognize the utter ignorance of the public as to these daily fatalities, and its consequent indifference."

The development of many surgeons usually takes place in another way. After a few years spent in practice, the man who wishes to adopt surgery will do one of two things; he will either attempt to practice major surgery at once or he will take a special course in an effort to qualify himself. In the former case he is criminal, if not a criminal. In the latter, after many years of medical practice he takes a six-weeks' course covering every known specialty and then announces himself as a surgeon. Such courses are usually taken for the deliberate purpose of revenue, in which case they do greater harm than good.

Thus the country is infested with two types of men—the recent graduate, who imagines he knows the indications for and can perform any operation; and the amateur physician-surgeon, who, as Munroe said, "operates for the excitement of the fee."

What can be done to obviate this condition of affairs? Today's medicine differs from yesterday's. The hospitals need more interns; the public needs better trained men. Every man who would practice in the future should have, without exception, at least one year of hospital training. With the increasing complexity of the practice of medicine, the hospitals need the service of every man; and with the rapid increase in the number of hospitals there will be abundant opportunity for universal hospital training. Many others have written upon this same subject, and there is a great diversity of opinion; all agree, however, in recommending more or less hospital training as an essential for the development of a surgeon. The routine examination of a patient requires much more time and more assistants than formerly. For example, twenty years ago a patient was thoroughly investigated as to clinical laboratory methods by a simple examination of the urine and the sputum. Now we must add to this, blood, stools, and gastric contents, not to mention the Roentgen ray, the various complement fixation tests, and many others. In a large hospital recently an attempt was made to secure a Wassermann on every patient, and the cases soon ran into the thousands.

If the hospital needs more assistants, then it follows that, leaving the financial aspect out of the question, it can keep more men employed, and be of great value to the patients themselves and to the future of society.

It being granted that more men are needed, then more opportunities are available, and there is only one thing

[1]Paper read before the American Hospital Association, San Francisco, June 22-25, 1915.

to stand in the way of universal hospital training, namely expense. The expense entailed in consulting a long line of specialists would be enormous even for the well-to-do; for the poor, it must be borne by the hospitals. So important is this to the public that many persons have suggested the community treatment, which will be referred to later.

The matter of research, too, while it may not interest the patient directly, is of vast importance and will have to be conducted by the hospital and the medical school, since it is essential to the development of surgeons and of the cultivation of their individuality.

A POSSIBLE SCHEDULE

The time that it will take to make a surgeon, and the methods employed, are bound to vary, depending somewhat on conditions, somewhat on the man. The main thing is to set up and maintain a standard uniform enough to produce good workers without destroying individuality.

Bernays says, "After graduation the student must become attached to a hospital or he must become assistant to a hospital surgeon so that he may take part in the daily exercise of the science and art of surgery. Exactly how many years should thus be spent, I cannot say; one, two, or three years should suffice to turn out a surgeon who is capable and ready to offer his services to the public with a good prospect of making a useful and successful diagnostitian and operator, after the completion of further study."

Allen says, in discussing this subject: "First, thorough and broad instruction; second, prolonged hospital residence and post-graduate study; and third, the establishment of some standard of attainment which must be reached by men to gain their general recognition by the profession. If these ends be attained, the community and the general profession will not long remain in doubt as to the men who are deserving of their confidence and support. Such a standard would do much to protect the public from incompetent men, and to place in the hands of capable surgeons those facilities which they alone are able to utilize to the best development of their profession, and the best interests of humanity."

The plan of hospital reorganization that the essayists wish to suggest contemplates a short hospital training for all men (one year), longer training for the better men (promotion within the ranks), and, finally, remuneration after men have been in service for a certain length of time.

In order to give all graduates the advantage of the hospital it will be necessary, for some time at least, to shorten the time of hospital training to one year for the rank and file of men—which practically amounts to adding one year to the four years' course in medicine as now given, a step long favored by many educators. To make better trained men, however, it is proposed that the abler ones be given additional opportunities, so that at the year's end they may be offered advancement, the promotion being based on examination and knowledge of their capacity, character, and achievement, in part, at least in creative work. This amounts to promotion within the ranks and should be based strictly on merit, determined by fitness. At present, when a student after graduation selects surgery, he will continue in surgery, no matter how unfitted he may turn out to be; and at the end of two years he will consider himself a surgeon and be willing for a consideration to offer his services to anybody. By the method of promotion within the ranks, if he has not the capacity to become a surgeon, he will be dropped at the end of his first year. The knowledge that a few of their number at the end of the first year will receive promotion, and that a still smaller number may be appointed to positions as residents at the end of the second year, will keep alive a constant striving and ambition, and bring out the best that is in each one. This has recently been offered by one of the writers for adoption as the basis for the intern system of Bellevue Hospital.

This compulsory hospital year, with a preliminary compulsory academic year following high school added to the usual four years' course, will amount to a six-year course in medicine, and it is believed by the essayists that this offers a better disposition of the time than to compel men to possess an academic degree preliminary to the study of medicine; at least, until much of the useless matter now taught in the academic as well as in the medical schools is abolished, making room for more profitable work.

To amplify, it is believed that under existing conditions, one year of special preparation following high school, and one year of hospital training following graduation, are of more value to many men than the four years spent in acquiring an academic degree. After all, the fact is that we are dealing with the average man who is going to practice among his average fellows, and there is such a thing as over-training in medicine, with consequent loss of initiative and efficiency.

It must have been observed by all educators that the ordinary human mind is capable of acquiring a certain amount of knowledge, and after this has been stored, the limits of capacity have been attained, and the owner, if pushed, becomes stale. This accounts for the phenomenon that often presents itself when a student, possessing an academic degree, is outdistanced by one who holds only a high school diploma, but is able to keep up steam all through his medical course. Heredity, no doubt, has as much to do with these phenomena as environment, but the one is immutable while the other is subject to modification. Take such a man of the rank and file, gone stale—take him from the task of acquiring, give him applied work; close his books, for the time at least, and under the stimulus of his environment and problems he will develop again along other and useful lines. How helpful it would be if a feasible index or measure of a student's real limitations and capacities could be found! Such a scale is as necessary to medical education as it is to commerce and the mechanical arts, where it has long been sought. We will hail with delight the medical efficiency engineer.

It will be argued that such a schedule would take a great deal of time, but it must be observed that it is capable of infinite variety and, depending on his fitness and ambitions, the young man may drop out at the end of any one-year period or at the close of the whole period. If he stays through and is fit, he ought to and likely will be promoted in the service of the hospital and university.

In the case of those whose service is long, it is believed that some form of payment should be arranged for each year after the first, and certainly after the second year of service. Indeed, it is to be expected that when the public, represented particularly by the lay hospital boards, awakens to the vast economic principles involved here (for every day the sociologic side of hospital work becomes clearer to all) they will be willing to pay even the interns. It is at this time that the average man, having spent all his family can afford, needs to earn at least money enough to support him, and it is believed that under some such plan he may receive fully as much as is collected on the average by the beginner in embryonic and essentially unproductive practice.

No doubt many other schedules will be suggested to fit special environments, but as we have already stated, the important thing is to make a beginning.

The development of the science under the continental system depended, as has been stated by a surgeon, upon amazing patience in pursuing long courses, upon accurate knowledge of anatomy, upon familiarity with gross pathology, willingness to serve long apprenticeships, and a devotion to a life with but small compensation. It might be and is urged in opposition to the continued success of these methods that there is a rather noteworthy and widespread lack of the application of the laws of physicians to continental surgery and that a long period spent as assistant is almost certain to repress initiative and to subordinate individuality.

Certain it is that the impression gained by an American surgeon visiting the continental surgical clinics, aside from the marked contrast in the handling of the individual patients, is the difference in technical skill. Good dissectors are common, but surgeons are not longer bred in the dead-house. Rare, indeed, is the American surgeon who would choose to be operated on on the continent in preference to America! The poorer technic and the persistence on the continent of the pathological era in surgery are the two important sign posts which pointed to the early transfer of surgical progress to America long before the war.

Even admitting its value, it may not be concluded that we can transplant these methods to American soil any more than make student duels popular. Before the transplant could grow the entire environment would have to be changed. For instance, there the youthful doctor receives respect and has opportunity, and his small salary is sufficient; here, without a practice, he finds little comfort in watching a broker or manufacturer who has a five-thousand-dollar limousine and a box at the opera, both of which may be denied to himself for his entire professional career. Nor is the time urged in any of these schedules long as compared to that of the practitioner of Pare's time, who lived in the house of the master for two years in Paris and then followed the Spanish army in the low countries for four years longer to see whether the Italians or Germans or Spanish had any advantage over the modest Ambrose, who wrote: "I have certainly touched the mark whereat I aimed so that antiquity may seem to have nothing left wherein it may exceed us besides the glory of invention, nor posterity anything left but a certain hope to add some things, as it is easy to add to former inventions."

Such is a review of the well known system of hospital training generally received by the young surgeon. In brief, he is taught a highly technical therapy out of all proportion to the training given in diagnosis. We do not mean to imply by this that the training of the young physician is one whit better, for it is at least equally lacking; but we are here particularly concerned, as already stated, with the student who is to become a surgeon. Because of the greater damage and of the greater good he can do, it is well to improve his standing first.

Turning now to the second point under consideration, it is a certain prediction that the best results in the future will be largely a matter of team work. Medicine is too complex for any one man to attain a complete understanding for any considerable part. In the old days, a student went into the house of the master, who became his preceptor. Ordinarily, their reciprocal relations were not of much advantage to either. The preceptor told stories and the student compounded Gregory mixtures. Today we believe that after graduation the student, now a doctor, should become closely allied with older and busier men. It is easy to see that the benefits are not by any means one-sided and that added ones should accrue to both or to all the members of this medical partnership. Indeed, the first thing that strikes one is the value of that free discussion and consultation which takes place without added expense to the patient.

Who would think today, as Ochsner well says, of attempting to operate a shoe factory by the methods of fifty years ago? That is what many hospitals and physicians are still trying to do; no wonder they are outstripped by institutions and men using modern equipments! Thus has come about the medical corporations—best developed in the west and for the time, at least, answering admirably the intricate requirements of present-day medicine.

If today calls for corporate medicine, communal medicine may be the method of tomorrow. Mention has been made on the one hand of the quasi-public nature of our profession, of the direct and vital interest in it which every layman has or ought to have; of the complexity of our problems, the impossibility of any one man being able to solve or even to grasp them all; and of the expense, on the other hand, of submitting them to a group of specialists; of the necessity on this account for team work; of treatment by companies of physicians or by hospital staffs. All of these tend to make treatment, at least preventive treatment, a matter of *institutional* care. This has been done here and elsewhere by boards of health, and in England under the insurance act; a large part of the medical profession have become public servants and are paid for their public work out of the public treasury.

Discussing the possibility of medicine becoming institutional in the future, particularly preventive medicine, the retiring medical officers of the New York State Board, in a recent interview, have pointed out the tendency in this direction, but have refrained from predictions.

In passing, he states that it is believed that under the Lloyd George Insurance Act much of the medical service rendered is perfunctory, and cites the further danger that doctors may lose initiative. As to the possibility that this will come about, one can at present only class the act with the referendum and recall, or rather, with government ownership of railways and telephones. So far as we know, these are still *sub judice;* to make them a success, the whole order of the world will have to undergo readjustment. The essayists are far from believing, however, that such readjustment may not come or, indeed, that it may not already be close at hand. In any event, they stand uncompromisingly for the preservation of individuality even at some loss of efficiency.

Turning from the hospital intern system and corporate medicine to the surgical training of the universities, it is timely to inquire as to what factor has been at work in causing the universities to admit their departments of surgery to their graduate schools. It is because the university has recognized in the laboratory of physiological, surgical research a factor of great educational value and a link between applied surgery and the natural sciences.

Laboratory methods in teaching surgery to undergraduates were first shown to be of permanent value about fifteen years ago. Surgery is indebted to W. S. Halstead for the stabilizing of this innovation, and the present position of the laboratory unit in departmental work is due primarily to the genius for teaching of this far-sighted man.

Halstead's ability for training men is second only to his capacity for surgical research, and he early discerned that the surgical laboratory in the hands of the head of a department of surgery would be an invaluable tool for evolving new surgical facts and creating a new race of surgeons whose viewpoint would be philosophical rather than technical.

Since then the rapidity of the growth of the surgical laboratory in our leading universities has been truly amazing, each prominent medical school being now more or less thoroughly equipped with the mechanical requirement for such a unit. The laboratory has become an integral permanent division of each surgical department, and as in all cases where growth has outstripped adaptation, the material equipment having outgrown the academic application, it may be well to pause and to consider some of the pressing problems which have thus arisen. Prominent among these are, what should be taught, to whom it should be taught, and the time which should be devoted to the course. Fixed must be the growing conviction that the surgical laboratory staff, to accomplish the best results, must be given full hospital facilities, together with recognition and promotion for achievement at the same rate at which it is now given men who work only in the dispensary and the wards. This will come with further enlightenment. The necessary hospital readjustments which are inevitable as the graduate surgical student takes his place in the wards, are likewise subjects for thought and action. For the advent of such workers, whose advanced degrees will be won as much in the wards as in the laboratory, together with the application of a system such as proposed, will mark the passing of the merely technical intern. By the system of rotation proposed, the surgical residents will become medical academicians first and technicians afterwards. We can depend upon the laboratory to break the evil and antiquated conception of a distinction between medicine and surgery, and to give a new and healthy viewpoint.

The problem of coordinating the workers and of interlocking their results is by no means an easy one, but a correlation of the hospital ward, the dispensary and the surgical laboratory for undergraduate and graduate teaching and for hospital welfare alike is necessary. In the earlier day, not by any means remote, this was a simple matter, for the granting of clinical opportunity in the hospital and promotion of the teaching staff went along hand in hand almost automatically. One factor tending to simplify conditions of these earlier days was that surgery was very justly considered by the university authorities as a technical art, quite outside of the academic pale, nor could any one justly assert, however partial he might have been to that art, that the academicians were incorrect in their viewpoint. Now, however, the universities have begun to admit their departments of surgery into their graduate schools on the same basis as physiology and anatomy, granting the usual advanced degrees in science or philosophy for the study of surgical problems; and such degrees will be granted for the studies upon the human as well as upon the lower vertebrate body—the whole question being obviously one of comparative mammalian pathological physiology. Departmental heads, therefore, must promptly recognize that the old barrier between so-called "practical" and "theoretical" workers in surgery was a bad one. This position has just been taken by New York University. It must give place to the modern conception that laboratory training, with its logic, its inductive and deductive philosophy, far from unfitting men for the work of applied surgery, certainly equips them for the best and most progressive constructive work. The writers of this article wish to make it clear that they consider bedside work essential, but that no amount of it can ever take the place of laboratory training in the making of a surgeon, the one being complementary to the other. The teachers of the greatest post-graduate school in the world, the Mayo Clinic, hold that the operative technic is the last to be considered and the fundamentals of diagnosis the first, and with them we heartily agree. Diagnosis has its roots deep in bio-chemistry and physiology. The profession looks to the hospitals in no less degree than to the medical schools to support and give proper advancement in the wards to young men who elect to spend a large part of their post-graduate time in the study of these sciences. Otherwise, if preference is given to men who simply do ward work, men who seek hospital services will fear to give requisite attention to research.

The following quotations from Deaver (Deaver and Pfeiffer, L. I. Med. Jour. July, 1915) serve well to indicate the trend of modern surgical thought:

"If a medical school can produce graduates who think correctly and advise wisely in surgical diseases it will have accomplished its proper task. The development of surgical sense, of a correct understanding of the role of surgery in prevention and cure, should be the aim of instruction; methods, procedures and handicraft are secondary considerations."

"The best book on surgery is the latest work on physiology."

"The mere craftsman is no longer entitled to be called a surgeon; he must be a biologist, bacteriologist, and pathologist. Any course in surgery which does not prominently recognize the changed relations between the head and hand of the surgeon is not modern and is not satisfactory."

It is our impression that the modern department of surgery must consist of three closely correlated divisions, to-wit:

1. Applied or therapeutic surgery.
2. Diagnostic or deductive surgery.
3. Experimental or inductive surgery.

These three are not named in order of relative importance, but in order of their evolution. It seems not improbable that when arranged in accordance with their true value this order will be reversed. Such a rearrangement would lead the student through induction, from simple experimentation to deduction or diagnosis, and finally, to the applied or therapeutic side of the knowledge. The deductive method is obviously fitted to the mature mind of wide experience; the inductive is essentially the method of the young mind, with little or no experience.

We agree with Jonas, who says that principles, rather than technic, should be taught in surgical laboratories; and this conclusion is based upon our fourteen years of experience in laboratory teaching. We are convinced that much evil may result from routine teaching of operative technic, for one of the objections of today's training is that technic has been made too easy. Is not this the lament of every well trained surgeon who is obliged to spend a large part of his time in repairing the damage done by technicians who, unfortunately for the patient, were nothing more than mere craftsmen? Such lacerations are not longer to be confounded with operations based on physiology, however cleverly they may be executed, for they give bad results and discredit surgery. Undergraduate technic should be learned chiefly in the minor surgery, in bacteriology and upon the human cadaver. The surgical laboratory should be open to the senior students only and to those in whom the scientific mind is coupled with manual skill. Just what the post-graduate laboratory teaching should be is still, as intimated, a matter of doubt, but the following outline has proven serviceable. Its best use, perhaps, is to illustrate that more and more surgery is coming under the domain of law, and thus amply to justify its acceptance by the graduate schools of philosophy. As has been written:

"All mundane events are the results of operation of law. Every movement in the skies or upon the earth proclaims to us that the universe is under government.

"Physiology, in its progress, has passed through the same phases as physics. Living beings have been considered as beyond the power of external influences, and, conspicuously among them, man has been affirmed to be independent of the forces that rule the world in which he lives."

We are at the end of the trail. Modern surgery has helped disillusionize us:

A. Alimentary tract.

1. The dynamics of the alimentary canal. Dilatation, stricture, ulceration, tetany, atony, autonomic relations, heredity.

2. Internal secretions of the duodenum in relation to death from intestinal obstruction and auto-intoxications.

3. Law of organic compensation in special relation to surgical therapeusis, ablation and the post-operative readjustments of the organism, ileostomy and the vicarious assumption of colonic function. Colectomy, gastrectomy.

B. Urinary tract.

1. Dynamics of the ureter and bladder. Dilatation and law of compensation. Stricture, neuro-muscular impairment.

2. Paramount importance of the ureteral prostalsis over the uretero-vesical valve. Hydronephrosis and renal infection.

3. Surgical analogy between the alimentary and urinary neuro-muscular tubes and valves.

4. Uretero-enteric anastomosis based on surgical physiology.

C. Cerebro-spinal system.

1. Hyperthermia in connection with decompression.

2. Experimental studies in increased intradural pressure, concussion, contusion, etc. Experimental optic neuritis.

3. Experimental spina bifida. Relation of heredity.

The admission of surgery to academic university standing is a step of great importance, not alone in itself but in the opportunity which it creates for the hospitals to increase the number and quality of ward workers. The essayists feel that this departure may be the vantage ground of many new lines of thought and action.

The distinction between medicine and surgery has faded almost entirely away, and with it the old idea that the "practical" man, whatever that meant, was superior in applied work to the so-called "theoretical" man, who might decide to turn his attention in part to applied surgery. Laboratory studies must be put on equal footing with ward work in hospital recognition and advancement.

Hospital services should be mixed, but the mixture must be constant, not alternating. Medical and surgical wards should be much more closely identified and all petty strife between the services eliminated. It is also believed that the time will soon come when the so-called medical man will visit the surgical wards, and the surgeon be made welcome by his medical confrere at the bedside of patients who may in no sense require operation.

Indeed, if one considers the frequency with which the operating doctor visits and inspects the cavities of his patients, there to see the living pathology rather than terminal dead house conditions, it could in no wise be considered unjust if one applied to the surgeon, rather than to the physician, the term of internist.

All new hospital cases should be admitted to a diagnosis ward for impartial study. It is absurd that sectarianism should longer be tolerated in medicine, in view of the healthy agnosticism which is rapidly replacing the dogmatism of the past, and of the broad and generous viewpoint with which medicine and surgery have recently been endowed because of their acceptance of scientific truth.

Full recognition by the graduate schools and a free hand to correlate surgical studies upon lower mammals with coordinate studies upon the highest mammal, man, in the surgical laboratories and in the hospital wards, will tend further to fuse medicine and surgery, improve the grade of students, diffuse knowledge, and ultimately serve to lighten the burden of fostering medical progress which has suddenly come to America because of the great war.

The Operating Room[1]

BY HERBERT O. COLLINS, M. D.,
Superintendent of Hospitals, Minneapolis, Minn.

Of the various departments of the average hospital, the chief interest is often found in the operating rooms, as the center of attraction for both staff and nurses. This is but natural, as the surgical service dominates many hospitals, and there is ever a certain element of both mystery and efficiency about the work of our best operating rooms.

Hospital superintendents have here found a fertile field for the working out of their choicest hobbies; architects have vied with each other in the use of expensive building material; lighting experts have studied the use of various devices, without as yet having discovered the ideal light, and dealers in hospital equipment have been diligent in the manufacture and sale of complicated and beautiful apparatus; whence we are tempted to begin our subject with the question, "What *is* an operating room?"

Several years ago the writer visited about forty of the leading hospitals of the country for the purpose of studying their construction, equipment and organization. And, after a survey of that kind we are tempted to offer several definitions of an operating room, as exemplified in modern hospital construction, as follows:

1. An operating room is a place for the exhibition of samples of expensive marbles and tiles.

2. It is a room designed as a suitable background for the proper display of the white enameled, nickel plated, and often mechanically complicated apparatus of hospital supply houses.

3. It is a stage on which the surgical nurse is the leading lady, the assistant nurses and interns play more or less important parts, and the operating surgeon is the hero.

But if we consider that the hospital is really designed for the benefit of the patients and that the chief object of the average patient in a hospital is to recover his health as rapidly and easily as possible, I would rather define an operating room as follows:

1. An operating room is a workshop, in which everything is designed for the assistance of the workers, and where there is nothing that may be considered as superfluous or unnecessary, or planned only for show.

2. An operating room is also a scientific laboratory where many questions in anatomy and pathology, or in surgical technic, arise and are solved.

3. It may also be properly looked upon as a training school for young surgeons, and as a very important department of a training school for nurses, where assistants gradually acquire the experience and training necessary to qualify them as principals, and where the operator himself, no matter how great may be the experience he already has, is constantly adding to his fund of surgical knowledge.

With the latter definitions in mind, the chief characteristic of the operating room, as far as its construction is concerned, should be extreme simplicity. If the floor be of tile, it is simply because a hard vitreous tile wears better and is more easily cleaned than any other known at the present time. Marble walls may add to its beauty, but they also increase the expense, without having any particular advantage over a smooth hard plaster, well enameled. Plumbing fixtures should be carefully selected in order that they may be easily cleaned, readily repaired, and may serve the purpose for which they were intended. The same general principles should apply to furniture and apparatus. It should be simple in its construction, dura-

[1]Paper read before the First Annual Convention of the Catholic Hospital Association, Milwaukee, June 24-26, 1915.

ble, and limited to those pieces absolutely necessary for the work to be accomplished.

The question of the proper lighting of the room is important, yet it need not be difficult if certain principles are recognized and adapted to the special location of the room to be considered. Skylights should be avoided where possible, as they are apt to be dirty, dust catchers and dust distributors in spite of the most careful attention, and have a tendency to sweat in cold weather, dropping water upon the table. A photographer's window set in the north wall will give much better light and is safer. For artificial lighting, most of the expensive fixtures on the market may be avoided, if we remember that all that the surgeon wants is an ordinarily well lighted room, with an additional arrangement by which he can, at will, have a rather intense light on the field of operation, avoiding shadows and unnecessary heat.

What has been said regarding its construction and equipment may be repeated as applying to its organization and operation. For here again simplicity should be the keynote. It is usually the tyro in surgery who requires an army of nurses and interns to assist him in an operation, and who stacks the table high with instruments and dozens of different kinds and sizes of towels and sponges, till everything is confusion, and the room loses sight of efficiency in a wilderness of unnecessary persons and things. It is not unusual to see from ten to twelve people engaged in the performance of a comparatively simple operation, each with his own duties assigned to him or her with a nicety that can only result in danger to the patient and no great advantage to anyone.

How different is this from the well organized operating room service, from which everything and everyone not actually needed has been eliminated, with a thoroughly competent operator. For here we find the number of assistants reduced to four or five; namely, the assistant to the operator, the anesthetist, the sterile nurse, and one unsterile nurse. Perhaps an orderly may be needed during part of the time, to lift the patient or to do other heavy work, but it is seldom that he needs to remain constantly on the floor. If another pupil nurse be added, in order that she may prepare herself gradually for the more important duties of acting later as a sterile nurse, that is only part of her training, and she is not necessary to the operation itself.

The relation of the operating room to the surgical wards is important and is provided for in various ways. Usually the surgical nurse has no duties outside the operating rooms, and the wards are under the charge of head nurses, responsible directly to the superintendent of nurses. The disadvantage of this arrangement is chiefly to be found in the divided responsibility and variation of methods, always bad in a hospital. If possible, the surgical nurse should at least be responsible for the preparation of the patient for operation, as well as for the operation itself. And if she can also have some supervision of the subsequent dressings it is still better. For she alone of all the nursing force is most likely to be familiar with the special methods of the operating surgeons, the nature of the preparation best suited to the operation to be done, and during the after-care she will best know what is most needed, having seen the operation. Just how this can best be accomplished will depend largely upon circumstances, the size of the surgical service and the general organization of the hospital. But it should be worked out in accordance with the principle of fixed responsibility and uniform methods—in both of which we, no doubt, all agree.

Should the assistant to the operator be a graduate surgeon, brought in from outside the hospital, and selected by the operating surgeon? Or should he be an intern and should this be a regular intern's service? This is a question which can hardly be answered in a general way, but will need to be considered in connection with the problems to be met in each individual operating room service.

There are many advantages, no doubt, in allowing an operator to choose his own assistant, as this gives him an opportunity to select some one already trained, and a chance for the operator and assistant to develop a degree of team work not to be expected when the assistant is an untrained intern, changing every few months; and if this arrangement is for the benefit of the patient, little room is left for argument in favor of allowing the intern to act in this capacity.

On the other hand, is it not true that in the vast majority of operations the service of the average intern is sufficiently skilful to enable him to act safely as a first assistant, taking it for granted that the operator himself is perfectly competent and that the assistant works constantly under his direction. And we must not be entirely forgetful of the fact that the hospital owes the intern an obligation which it has no right to ignore. For that hospital which does not consider itself as an educational institution as well as a mere boarding house for the sick is leaving unoccupied one of the most important parts of its legitimate field. Much of an intern's work is routine and more or less uninteresting; yet it must be done, and in most cases he receives nothing for his time and skill except his bare living and his training. I believe, therefore, that as far as it can safely be done, we owe it to our interns to give them some active work in our operating rooms, instead of expecting them to stand idly by, as spectators—a role which we must remember they have already filled for several years, while attending clinics.

There may be exceptions to this, in connection with certain difficult operations, in which the assistant needs to be almost as skilful as the operator himself; but with a few weeks' experience the average hospital intern will "play up" to his responsibilities and opportunities, and in nine-tenths of the operations will be perfectly competent to fill the position of first assistant.

What has been said regarding the assistant may be repeated to a certain extent in reference to the anesthetist. Does this service legitimately belong to the intern, or has the time come when the trained anesthetist is essential? Here we are met with the same questions which we had to confront in connection with the assistant to the operator. For if this work is to be taken away from our interns, where, they ask us, are they to acquire the necessary experience to enable them to administer an anesthetic skilfully in their private practice?

On the other hand, there are many conditions under which the anesthetist is called upon to exercise a skill equal almost to that of the operator himself. And with the more and more general use of different forms of anesthesia, both local and general, the administration of anesthetics is becoming generally recognized as a specialty, requiring special training and experience. For these reasons the expert anesthetist is likely to receive more general recognition in the future, and to be looked upon as essential to the proper organization of an operating room as the surgical nurse. In any large, general hospital there will always be enough minor operations to enable the intern to obtain such experience in the administration of anesthetics as he has a right to expect. And with the growing demand for the paid and specially trained anesthetist, the time will soon come, and in many hospitals it has already arrived, when the intern will be obliged to step

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The officers and members of the new Catholic Hospital Association, organized at Milwaukee, June 24, 25 and 26, have taken up the work of hospital efficiency under organized auspices most enthusiastically. Already plans are being made for a rousing meeting for 1916, and it is almost assured that the association will soon contain representatives from almost all of the 515 Catholic hospitals in the United States.

The above group includes all the officers of the association except Rev. Chas. B. Moulinier, S. J., president, whose photograph was published in the August number.

Additional papers read at the session are published in this issue and others will be published in October.

aside, as far as the anesthetic is concerned, in most of the operations, whether he wishes to do so or not.

In conclusion, allow me to offer the following summary of what I think should characterize a model operating room:

1. Its construction and equipment should be of the simplest nature, compatible with efficiency.

2. Its personnel should include only those absolutely necessary, all superfluous persons being eliminated.

3. Its atmosphere should be one of quiet and order. Loud and unnecessary talking, laughing and joking should be entirely ruled out. And in this connection permit me to be so bold as to make this suggestion: when you find your operating room in more or less excitement, with interns noisy and nurses confused and nervous, look to the surgeon.

Is he setting the example of calmness, dignity and earnestness? Or is he fault-finding, scolding and "fussy?" He is the autocrat of the operating room, and as a rule his own disposition and deportment will be reflected in the actions and feelings of those around him.

How many of you are there who cannot tell which of your staff surgeons is operating almost the moment you enter the surgery?

Efficiency and Progress in Hospitals[1]

BY HOWELL WRIGHT,
Superintendent Cleveland City Hospital, Cleveland, Ohio.

This paper has to do with efficiency and progress in municipal hospitals in this country. It lays emphasis chiefly upon hospitals owned and operated by the city and the county, individually or jointly, and supported by taxation, with mention of so-called private hospitals receiving fees or appropriations from the municipal or state government. It is not a "survey." Rather it seeks to point out on the one hand some of the many hopeful instances of progress, and on the other hand some of the causes for the serious failures in municipal ownership and operation of hospitals, with suggestions to eliminate such causes.

At the Detroit meeting of the American Hospital Association in 1912, Dr. Henry M. Hurd, in his President's address, spoke of the functions of a municipal hospital as follows:

"A stricter line of demarcation should limit the sphere of activity of the municipal and voluntary hospital. The municipal hospital should be reorganized whenever it is necessary, to afford proper care for all cases of chronic diseases among dependent patients and for cases which come under the police powers of the city—cases in which the right to restrain them in quarantine or to isolate them or to enforce hygienic requirements must be exercised."

Surely, Dr. Hurd or the American Hospital Association will not agree to limit the sphere of activity of all municipal hospitals to the care of chronic dependents and patients requiring quarantine or isolation, even though isolation be made to include the shamefully neglected acute cases of syphilis and gonorrhea. Unfortunately this is the limit of action now in too many cities, and too often the action, or inaction if you prefer, consists chiefly in running a boarding house or infirmary for chronic dependents. Dr. Hurd must have urged this line of demarcation and limited sphere of activity as the least any municipal hospital can do and do well for the sick and maintain its self-respect.

The interests of humanity demand a far greater sphere of activity for the modern municipal hospital. This paper assumes for its major premise, and I hope the American Hospital Association will subscribe to it, that a municipal hospital is an institution of organized society provided by a city to care for the sick. It is but a medical means to a social end, and this end—public welfare—must never be forgotten. The modern hospital has outgrown the narrow field of boarding and treating sick people, and the time has come when a proper city hospital can no longer passively receive the sick from the community at large without regard for the reason why they became sick, use them chiefly as material and often discharge them without the slightest interest in their convalescence and rehabilitation in wholesome living and working conditions. Hospitals more than any other social agency accumulate the evidence against the dangers to life in the community, dangers from contagion, from ways of living and from industry, and they must feel the responsibility to study this evidence and become leaders in the progress of prophylactic medicine. The idle convalescent is of no more value in a community than the bedridden and scarcely less expensive to support. It is not only charity and social service but also sound economy for a city to supervise convalescence; to make it such that the patient can return to his work the sooner. A city hospital of today must continue to give to a community scientific care for its sick, and must afford opportunities both for scientific investigation and for the education of physicians, nurses and orderlies. But, above all, it must, through its social service work and through cooperation with all other community social agencies, give a watchfulness over public health and results that are more days of life, work and happiness to its citizens. What, then, have the municipalities of this country to offer in owned and operated hospitals actually serving or planning to serve these broad purposes?

SOME INSTANCES OF EFFICIENCY AND PROGRESS IN MUNICIPAL HOSPITALS

Considering that it is now the recognized duty of the city to care for the sick poor and to protect the public health by quarantine and isolation of contagious and infectious diseases, including syphilis and gonorrhea; considering the limited number of free beds in so-called private hospitals for the great numbers of sick poor needing scientific treatment and unable to pay for it in practically all American cities of any size; considering that it is the recognized duty of the state to afford opportunities for the education of physicians and nurses; and further considering that in many of our cities of over 100,000 population there are numerous acceptable medical schools, each eager to graduate well trained physicians, each eagerly seeking opportunities for the study of such forms of disease as municipal hospitals alone can and should offer; considering the lack of adequately trained nurses throughout the country; considering the needs for hospital social service, out-patient and dispensary work for the sick poor; in consideration of all these opportunities there is not nearly enough to offer, by and large, in the way of efficiency and progress in municipally owned and operated hospitals, in proportion to what believers in popular government have a right to, and do actually, expect from them.

Two splendid examples of long-continued efficiency and progress are recognized in the St. Paul City and County Hospital and the Boston City Hospital. The former owes its leading position to the personality of one man. The history of the St. Paul City and County Hospital is the life and history of its present Superintendent, Dr. Arthur B. Ancker. The Boston City Hospital, which has been generally considered the best in the United States, may fairly be said to owe its position to state legislation, which created its present form of organization and control and which materially lessened the opportunity for political in-

[1]Paper read before the Seventeenth Annual Conference of the American Hospital Association, San Francisco, June 22-25, 1915.

terference. But even in this hospital, I am informed, it has been possible for a new mayor's personal, family physician, an untrained hospital administrator, to be appointed as superintendent. The result is awaited with great interest, but judgment should be suspended and the new appointee given a chance to show his ability to keep the reputation of the hospital up to its recognized high standard. There are also many hopeful instances of more recent progress in cities large and small in widely scattered sections of the country. In 1913, at the American Medical Association meeting, the late Dr. Rupert Norton said:

"The new Bellevue Hospital in New York could in a few years become a noteworthy institution, but there are many conditions which stand in the way of its development along the best lines possible."

Those of us who are familiar with the report of Mr. Henry C. Wright on Bellevue and Allied Hospitals believe that he has pointed out many of these hindrances, and are wondering what New York is going to do about it. No one would question the statement that Mr. Wright's report and recommendations are indications of efficiency and progress. When any municipality questions the efficiency of its ownership and operation of hospitals it is a hopeful sign. It is reported that some of his excellent recommendations have been and are being carried out. But we are waiting to see what is to be done about the recommendation to reorganize the professional work of Bellevue and Allied Hospitals and to place the control of all the municipal hospitals in that city under one head. Further efficiency and progress in New York hospitals based on such a progressive investigation and report will be an inspiration to other cities in this country.

Municipal ownership and operation of hospitals in St. Louis has received greater momentum in the new form of city government, which became effective August, 1914. The City Hospital, which cared for 17,000 new patients in 1914, has reorganized its professional work. It is affiliated with Washington University and with St. Louis University, and two sections of the visiting staff from these two medical schools represent the teaching force of the hospital, while there is a third section representing the profession at large. The house staff is also being reorganized, dividing the interns between medical and surgical services and permitting them to select either one as a major with minor services in the other branches of medicine. A three years course for nurses, effective on January 1, was inaugurated, and a new curriculum adopted which embraces every phase of nursing education. It is believed that this reorganization will not only provide the highest standard of medical care for the sick, but will enable the hospital to fulfil satisfactorily its obligation toward the problems of medical and nursing education. Definite plans are being made to increase its laboratory facilities, but most important of all to develop its relations to the community through a social service department.

There are many other hopeful instances of progress along broad lines, including the Denver City and County Hospital, the Richmond (Va.) City Hospital, the Los Angeles County and the San Francisco City and County Hospitals. But I wish to speak at greater length of one, namely, Cleveland City Hospital. While I am connected with it I can safely speak at length of its recent development, because it began before my connection with the hospital and is due to the efforts of Dr. Harris R. Cooley, the present Director of Public Welfare, who separated the infirmary from the hospital, and to the energy and personality of our present mayor. It is a typical example of what can be accomplished in a short time in any city by the united efforts of two strong forces, namely, the city administration and a united, representative group of the medical profession.

In the fall of 1913 it was considered necessary to reorganize the professional work of the hospital. It seemed an opportune time to do so for several reasons. The first units of a $3,000,000 hospital were under construction. The old short-term, divided visiting staff service was becoming less effective. Two of the medical schools providing part of the service were gradually going out of existence, and there was a growing belief throughout the community that the hospital was not serving the full purposes for which it was intended. Accordingly a plan of affiliation with Western Reserve Medical School was worked out, and this became effective the first of February, 1914. It provides for the nomination of the entire hospital visiting staff by the trustees of Western Reserve University and appointment by the City Department of Public Welfare. All of the professional work of the hospital is centered in two divisions, medical and surgical, each in charge of a division chief. Under each division there are grouped the proper departments, each in charge of a department head. The division chiefs and the department heads are on duty the entire year. This plan has many advantages. It places the responsibility for the professional care of patients. It insures working efficiency and cooperation among departments. It provides a continuous service, which in turn makes possible definite plans and policies in the treatment of patients and uniformity in the teaching of house officers, in the training of nurses and in the keeping of charts and records. The full value of a teaching staff has been recognized, but at the same time the city, upon the nomination of the University trustees, has appointed physicians and surgeons on the staff, who have no University connection. The entire visiting staff comprises thirty-eight persons, and of this number twelve have no connection whatever with the University. The interests of the hospital demand that full responsibility for professional care be centered in the division chiefs, allowing teachers and independents to be on service throughout the year under the direction of the division chiefs.

The house staff has also been reorganized, the rotating service shortened and improved, and paid resident physicians and surgeons provided. Students are taught in the clinics and laboratories, and there is a regular service for clinical clerks in the ward laboratories.

The school for nurses has been thoroughly reorganized. Adequate salaries have been provided, making it possible to secure a high-grade superintendent of nurses, an assistant, an instructor of probationers and a trained teacher to give instruction in theoretical and practical nursing. Paid head nurses have been provided for every division of the hospital. The number of pupil nurses has been raised from 75 to 110, and better facilities in the way of demonstration and class rooms have also been provided. It is planned to raise the educational requirements for admission October 1, 1915, to a full high-school education or its equivalent, and to put the nursing work on an eight-hour-day basis. While the hospital provides opportunity for nursing work in the medical and surgical wards in obstetrics, pediatrics, mental cases, contagious diseases and in tuberculosis, definite plans are under way for an exchange with certain private hospitals to give our nurses opportunity to nurse private patients.

The laboratory facilities have been greatly improved. A central laboratory, together with a new autopsy room and morgue, has been established in a brick building centrally located and originally used as a contagious hospital. In ad-

dition, we now have eight small, compact ward laboratories in the different divisions of the hospital, for ordinary routine procedures. The University has also provided an electrocardiographic laboratory for the diagnosis and study of cardiac cases. All of these modern laboratory facilities are affording excellent opportunities for diagnosis and for scientific treatment of the sick. They are a substantial basis for possible future development.

The first units of the proposed $3,000,000 group have been occupied, namely, the administration and the service buildings, the nurses' home, the laundry and the stable, while the power plant will be completed on the first of September. As the contract calls for the completion of the hospital without decreasing the bed capacity, it was necessary to build these units first. Their occupation has vacated space for beds in the old hospital buildings, consequently the capacity of the hospital has been increased from 500 to 650, and with the occupation of the new Venereal Hospital it will be further increased to 800 this year. From now on every cent appropriated can be utilized for new hospital beds and equipment, and it is a part of the plan to build pavilions as required each year, anticipating the completion of the hospital group by 1920.

Mayor Baker is unwilling to endorse a narrow sphere of activity for Cleveland's City Hospital. He believes that patients must be treated in the institution with regard for the reason why they became sick, and that it is the duty of the hospital to supervise their convalescence and return them to wholesome living and working conditions. In other words, he believes that a city hospital must exert a watchfulness over public health and through its own social service department and through cooperation with all public health agencies produce results that are more days of life and work and happiness to citizens of the community. Consequently greater emphasis has been laid upon developing the social service department of the hospital. With a limited number of workers and a limited amount of money it has not been possible to serve all the purposes for which this department is intended. However, some splendid results have come from following up our discharged patients through cooperation with such agencies as public health nurses, the Babies' Dispensary, the Humane Society, the Associated Charities and the dispensary at Lakeside Hospital.

There has been comparatively little opportunity to supervise convalescence, even though sadly needed, because the city has been obliged to economize. As in other municipal institutions, it has been necessary to use beds needed for acute cases for convalescent patients. The city has an opportunity to develop excellent accommodations for convalescents on its great Warrensville Farm, and every effort is being made to secure such accommodations at the earliest possible moment. Indeed, it should be considered as a part of the plan to economize, for it now costs us $1.50 per day to care for convalescents in our hospital, while they might be cared for at 50 cents a day at the Warrensville Farm in small, convenient cottages, and restored to their homes and work the sooner. All of the mental patients sent to us for observation should be sent to the Warrensville Farm, where they may have opportunities for work and recreation and a chance to forget their troubles. As our accommodations for convalescents develop the term "convalescent" can be made more and more elastic. In time it would include a patient who has been operated upon for appendicitis and could not go back to his regular work for two or three weeks but could could go to Warrensville in a week; a maternity case that ought not to go home for three weeks but could go to Warrensville on the ninth or tenth day; and patients with communicable diseases could go to isolation wards at Warrensville as soon as the fever period is over. Children suffering from nephritis and certain diseases of childhood that mean months or years for recovery, if they recover at all, and from chronic bone diseases of childhood, should be included eventually. No municipal hospital service is on a high plane of efficiency unless it includes provision for the scientific supervision of convalescence, and Mayor Baker means that Cleveland shall render such service at the earliest possible moment.

There will be still further opportunity for social service when our new 150-bed department for acute cases of syphilis and gonorrhea is opened this year. This department has been made possible by the remodeling of our old Nurses' Home Building at a very small cost. It is in line with the most advanced principles advocated for the care of such cases and in harmony with the newer and broader ideas of public health work.

Brief mention must be made of that group of hospitals in this country of a more or less private nature receiving fees, contributions or appropriations from the city or the state. Such hospitals are found in New York, Philadelphia, Baltimore, Pittsburgh, Detroit, Buffalo and many other cities. One hospital of this type, however, which ought to be mentioned in particular is the New Orleans Charity Hospital. It is a 1,000-bed hospital, affiliated with Tulane University Medical School, and its present superintendent, Dr. C. G. Wilkins, is responsible for its recent splendid progress along modern lines in the face of many difficulties. Much has been done to put the physical properties in better condition. Various changes have been made, placing the hospital in a far better position to meet its obligations toward the problems of medical and nursing education, and a social service department has just been inaugurated.

There are other hopeful signs of progress in municipal hospitals, but in a thirty-minute paper it is possible to touch only the high spots. The material that I have gathered within the last two years and my own personal experience during that time lead me to believe that there are certain definite preventable causes for serious failures in municipal ownership and operation of hospitals in the United States.

SOME CAUSES FOR SERIOUS FAILURES IN MUNICIPAL OWNERSHIP AND OPERATION OF HOSPITALS IN THE UNITED STATES, WITH SUGGESTIONS AIMING TO ELIMINATE SUCH CAUSES

One great cause for most of the serious failures in municipal ownership and operation of hospitals is the failure of two important factors to get together, namely, the city hall, containing the administration elected by the people, and the medical school, if there is one, or some medical society representing the medical profession. Each represents powerful constituents. Each wields a great influence over public opinion. And the medical profession thus represented in any given city in the United States, whenever a municipal hospital has been planned or reorganized, has it in its hands to make or mar that institution. There are few cities in which the proper city officials have not turned to the medical profession for guidance, assistance and instruction whenever they have been concerned with a problem of caring for the sick, and particularly the hospital problem. Too often the failure of the physicians to lend wise assistance has been due solely to their inability to forget their own professional political difficulties. And when conscientious city officials have worked out a constructive plan jointly with intelligent elements of the medical profession in any given community for the

institutional care of the sick, upon what occasion has not some misguided faction of the medical profession immediately, before waiting to give the proposed plan a trial, passed resolutions condemning these officials for playing politics, or other resolutions complaining that they personally are going to be deprived of something to which they think themselves entitled by "divine right of the profession."

In the construction of municipal hospitals responsible city officials have repeatedly failed to select competent architects or to associate with them practical hospital experts to draw the plans, with the result that many municipal hospitals, as far as construction is concerned, have failed absolutely to serve the purposes for which they were intended. Hospital construction is a science, and the ordinary run of city architects, or local architects for that matter, know less about the construction of modern hospitals than the average board of health in a New England country town.

The failure of some American cities to have proper municipal hospitals, or to have any at all, is often due to the mistaken notion of city officials that the cheapest and best way to care for the sick poor is for the municipality to pay somebody else to do it, and the medical profession has not been slow in some cities to advise and approve of this plan, generally known as the subsidy system. In some states subsidies to private hospitals are paid by the state government, in others by the city. A careful study of this plan will not convince thoughtful citizens that it is either the best, or in the end the cheapest, method either as a temporary expedient or a permanent policy. The city of New York in 1914, through the Department of Public Charities, cared for 48,244 patients in 5,793 beds. In private hospitals there were 40,480 patients treated in the same year at the expense of the department. Anyone familiar with the troubles of the Department of Public Charities in New York in trying to control payments to private institutions might incidentally find an additional reason for the high cost of municipal government. People familiar with the facts in the state of Pennsylvania will not question the statement that the subsidy system in that state has been the cause of wholesale political scandal and extravagance, even though a remarkable chain of hospitals has been developed throughout the state. It is generally known that the "mouths of some of the most public spirited citizens in the state are absolutely sealed, and any action on their part against the most flagrant offenses of a corrupt political organization is estopped by this system of grants of state money to private institutions." Subsidies to hospitals may be necessary under strict regulation for a long time to come in some of our older and larger cities, but should be consistently avoided in newer and smaller cities as against sound public business policy in caring for the sick.

In some cities, as in Buffalo, arrangements are made by the city with private hospitals for the care of city cases at low rates. Often the amount paid is only half of the expense, and frequently the comment of the private hospital is, "It is better than receiving nothing." Subsidy agreements are often the basis of much misunderstanding and result in greater cost to the city, especially when the burden is placed upon the city of proving that patients received and cared for by the private hospital are not legal charges upon the city. Under such arrangements the private hospital makes less effort to fix responsibility for payment upon the patient himself or his relatives, because it knows it will get something from the city. Under the lump sum subsidy plan interesting situations arise in some of the smaller cities. In Toledo, Ohio, the superintendent of one of the private hospitals says, "We, with two other hospitals, bear the burden of the care of city patients at a great loss in dollars and cents, because of the small appropriation allowed us, and it is only a question of time when the municipality will be compelled either to appropriate sufficient funds for private hospitals to care for their patients without a deficit or to maintain a municipal institution." On the other hand it is reported in other circles that there is decided opposition among the controlling forces of the private hospitals to the building of a municipal hospital. The city of Dayton pays $56,000 annually to two private hospitals, divided equally between them, although the city absolutely has no voice in the administration of either hospital. On the other hand the health department has been anxious to establish a city hospital for the treatment of contagious and preventable diseases, but reports that "both of these institutions have fought us so as to defeat our plans," and further states that department heads never had any cooperation from the institutions until recently; that one of them grudgingly takes measles and diphtheria cases at the request of the health department and the other one grudgingly takes whatever infectious cases are sent; and that efforts to use these two institutions as educational centers have been defeated by cliques in the medical profession.

The greatest hindrance and danger to efficiency and progress in municipal hospitals is found in the method or plan of administrative control. There are too few instances of the one plan of administrative control of municipal hospitals which will now more often insure long continued progress, and herein lies an additional reason for the high cost of municipal government. There are too many instances of city hospitals being a part of the changing city administration. In cases where the superintendent is appointed by the mayor or by some other executive of the administration whose existence in official political life is dependent upon the vote of the people, opportunity for long continued progress and efficiency rarely exists. In such cases rotation of office means rotation of hospital superintendents, with frequent change in essential hospital policies, and with the result that our city hospitals and the sick entrusted to their care are placed in the hands of a series of perfectly green and inexperienced officials. To repeat the process of placing the active authority and direct control of city hospitals in the hands of such officials, and to repeat the expensive and tedious process of developing them, whenever they can be developed, to the point of grasping even the essentials of modern hospital management, is to close our eyes to the recent rapid progress in the work of hospitals for a community and to make it forever impossible for many of our municipally owned and operated hospitals to advance beyond an elementary and experimental condition. And I know full well from personal experience what it costs a city and all concerned in time and in money for perfectly green and inexperienced officials to undertake the problems involved in managing a municipal hospital. While a combination of an intelligent executive with the best element of the medical profession in a given community may result for a time in substantial progress, the immediate hope of the municipal hospital in this country lies in placing the active administrative control in the hands of a nonpartisan board of trustees properly connected with the administrative and legislative branches of the municipal government so as to prevent it from becoming isolated from other public welfare activities. No other plan will now assure the average American city of the benefits of the accumulated experience and judgment it has pur-

chased and will purchase from time to time at great cost, and make possible continued efficiency and progress of its hospital and the service it renders. However, when public office becomes a public trust in the average American city; when the average mayor and his cabinet in the average American city are, by reason of education, training and experience, public welfare workers with high business-like ideals for the development of the city's welfare activities, and are continually elected by the people on this basis, then nonpartisan boards of trustees for municipal hospitals will not be necessary, because every change in a city administration will not necessarily result in change of competent hospital officials and essential hospital policies. This is the ideal for which we must work. And it will come about only as citizens interest themselves in their municipal government as a whole. Then efficiency and progress in municipal government will be synonymous with efficiency and progress in municipal hospitals.

Hospital administration is a business and a science. While there are both competent professional and lay superintendents, there has been a tendency in the past to select either untrained doctors or laymen as hospital managers with results not always satisfactory. And again there have been too many instances of failure of city administrations to place the authority and responsibility required in the hands of the hospital superintendent to promote efficiency and economy. It is a fixed principle in the modern hospital that the superintendent must have definite rights and responsibilities, including direct responsibility to some one constituted authority for the general management of the hospital; full authority to appoint and remove all employees of the hospital, including assistant superintendents, resident physicians, the head of the training school and all other departments and their subordinates. All of these officers and heads of departments must be wholly and directly responsible to the superintendent. He and his assistants must have absolute control of all admissions to the hospital and the final discharges. In other words, as the manager of a big business corporation, he must be given authority consistent with the importance of the position he holds, and it must be so understood by all concerned if he is expected to produce results. Yet states and municipalities continue to increase the high cost of municipal government in the administration of hospitals by passing laws and making charters with provisions which unnecessarily divide authority and responsibility among too many officers. Too often the laws or ordinances governing the administration of hospitals make the position of a municipal hospital superintendent essentially that of chief clerk. All of the authority he should have for the general management of the hospital is often placed in the hands of some officer in the city hall removed from the seat of operation. In Ohio, under the old Payne law, all the authority for the management of municipal hospitals is vested in the director of public safety. Regardless of civil service he can make the superintendent what he wants him to be or make him resign. And as administrations change director, superintendent and essential hospital policies change. Cincinnati's great new hospital is operated under this law. On the other hand the St. Paul City and County Hospital, with almost no changes in competent hospital officials and essential policies, has continued to give high-grade service to the community and is now doing so at a per capita cost of $1.25 per day.

In the future city authorities must learn to recognize that they cannot hold their hospital administrator responsible for scientific management unless they give him certain additional authority. They cannot hold him responsible for economy, for scientific saving, for the elimina of waste, unless they give him some voice in the purch ing of hospital supplies and equipment. They must learn to recognize that they are contributing further to the high cost of municipal government when they create a central purchasing department, which is sound business in general, but equip it with inexperienced, low-salaried purchasing agents, give them full authority to purchase medical and surgical supplies, instruments and apparatus; to take their own time about it and to make the hospital take any kind, any make or any grade regardless of experience and specifications. In some cities it would take the services of a $5,000-a-year specification clerk to insure the hospital's getting what is ordered and needed. The Providence City Hospital seems to have a satisfactory arrangement so far as the purchasing of supplies is concerned. There are only three contracts made by the city under which the hospital comes, namely, contracts for coal, printing and ice. In the purchasing of other hospital supplies and equipment the superintendent has a voice, as he must if he is expected to promote economy.

Another reason for failure of many municipal hospitals to serve the purposes for which they are intended, and incidentally another expensive contribution to the high cost of municipal government, is their almost complete failure to provide accommodation for convalescent patients and to supervise their convalescence. This has been quite general in the existing hospitals throughout the United States, although there are hopeful signs of improvement in the larger cities, such as New York, Chicago, Philadelphia and Cleveland. In the smaller cities even the hospitals that have progressed along other lines have been slow to recognize this responsibility. Such cities as St. Paul, Kansas City, Mo., St. Louis, Denver, Memphis, Cincinnati, Louisville and Milwaukee have done comparatively little through their municipal hospitals to place convalescence on a scientific basis. Let any city study carefully its municipal hospital accommodations for acute cases, the cost of keeping them, the opportunities to provide accommodations for their convalescence on the hospital land, on the infirmary, almshouse, or other land the city owns or can purchase; the comparative cost of keeping them in special quarters; and it will soon find that it will cost less and benefit the patients more to supervise their convalescence on a scientific basis. Let some intelligent group of taxpayers get this thoroughly in mind and they will gently remind some backward city administration that they prefer to support the poor as convalescents at 50 cents per day than intermittently as acute cases at $1.50. And some taxpayers are beginning to inquire as to how their money is spent for the care of the sick.

Extended inquiry throughout the United States warrants the statement that civil service as generally applied has contributed little toward scientific management or to the advancement of medical and nursing education in municipal hospitals. There is little objection to the selection of the chief hospital administrator through high-grade, competitive civil service, but when such an official is so chosen it is generally conceded that it is not only a hindrance to efficiency and progress, but contributory to the high cost of municipal government to delegate his authority in any degree whatever to a supervisory body with control over the conduct and management of the hospital in the form of what some enthusiasts call an "employment bureau." In the modern hospital world it is generally recognized that managing a hospital is largely the science of mixing many competent personalities. The success or failure of a hospital manager is often determined by his

ity to mix and fit such personalities. How can this important human element receive proper consideration at the hands of any sort of "employment bureau"?

It is admitted by some enthusiastic advocates of civil service that it is unwise, unnecessary and expensive to hold civil service examinations of any kind for hospital nurses or physicians, who must be registered by the state before they can perform the professional duties for which they have been trained. In some cities it is found that civil service has not been and probably will not be of any great assistance in the selection of that great group of employees commonly called "hospital helpers." And in the selection of the two remaining classes of hospital employees, mechanics and clerical assistants, civil service is declared in many cities to be of doubtful value. Obviously in consideration of such facts there is but one promising line of action. Select high-grade administrators, select them through competitive civil service examination if you must, and give them an absolutely free hand in appointments if greater efficiency and progress is expected in municipal hospitals.

Finally, the medical profession and municipal hospitals must be brought together more closely, primarily in the interests of the sick. One cannot render the highest service to the community and the public welfare without the other. The best element of the medical profession in every city must not only understand that the municipal hospital must provide scientific care for the sick and must fulfil its obligation toward the modern problems of medical and nursing education, but also that municipalities will not build municipal hospitals just to give every doctor in the community, regardless of his ability and training, an opportunity to treat the sick. On the other hand municipalities must now through nonpartisan controlling boards take their hospitals out of politics and keep them out of politics and cooperate with medical schools and medical societies in picking the best men for the hospital staff, and provide them with modern facilities with which to treat the sick and to study disease in return for services rendered. A new era is dawning in municipal ownership and operation of hospitals in this country, and such cooperation cannot fail during the next ten years to bring wonderful progress.

Significance of Hospital Rating[1]

BY F. E. CHAPMAN,
Superintendent City Hospital, St. Louis, Mo.

After inspecting a modern hospital plant it would require rather a vivid imagination to draw a picture in one's mind of the equipment of hospitals in earlier days. History tells us that the first hospitals, with one or two exceptions, were constructed for the care of the insane. They had little, if any, efficiency, except restraining the patient, if that may be termed efficiency. No attempt was made to treat patients, the sole object apparently being to provide a place where they could be isolated from the remainder of the community. Later on we see the origin of a few general hospitals for the care of the sick, and also a few maternity hospitals. The latter class were short-lived, owing largely to the high mortality from sepsis. The former, at best, were little better than medical lodging houses, their administrators knowing very little of asepsis, their staffs being ill-versed in the handling of disease in institutions.

It is not necessary to go very far back in history to learn of the troubles of our predecessors. The history of some of our best American hospitals tells us of the presence of hospital gangrene in practically every open wound, and the frequent death of patients due to infection transmitted from other cases in the hospital. It was not until Pasteur gave us his discoveries regarding bacteriologic life, thereby enabling us to combat these infections, that hospitals were able in any measure to perform successfully their proper functions.

As in all new departures, it was not an easy matter to prevail upon patients to go to a hospital when they were ill. This task was by no means made easier by the reports coming from those who had accepted the advice of their physicians. As a result, hospitals were looked upon with much disfavor. With the advent of modern surgery, and a realization on the part of the surgeons that proper work could only be done in an institution of the right sort, it became incumbent upon the medical profession to educate the public to this way of thinking. Those who did avail themselves of the facilities of hospitals under the new regime were quick to realize the resultant advantages, and this fact, together with the increasingly rapid strides in the development of hospitals, slowly but surely dispelled the odium against hospitals and converted a sense of horror into a sense of confidence. This acceptance of the hospital as an established institution is by no means unanimous as yet, but there is no question that hospitals are looked upon with better favor every day by all classes of people.

This change in feeling towards institutions for the sick is responsible for the vast strides made in the hospital field in a comparatively short number of years. It has resulted in practically a complete revolution in the care of the sick. Realizing the untold advantages of having patients under such control as to insure a strict adherence to instructions, the medical profession have aided in every possible way the development of this better feeling. The resultant demands for hospital facilities have meant the investment of large sums of money in hospital plants. These large investments are demanding the most efficient administration possible, and consequently we see the creation of the hospital specialist in the varied industries associated with the work.

Hospitals, good, bad, and indifferent, have sprung up overnight, as it were, and in some communities this development is even in excess of actual present needs. We see the creation of the institution holding the enviable position of enjoying a large endowment. We see also the creation of the institution not so fortunate, but striving with every effort to perform its functions in the best possible manner.

Unfortunately, we see also the creation of an institution with an administrative body which has not the qualifications to establish for itself a code of morals of unquestionable character. Such administrators, apparently, have never realized the true object of the institution they govern. They do not seem to differentiate between a commercial investment and the expenditure of money in the construction of a hospital. No one would advocate the improper application of funds, but the primary object, apparently, of such a board is returning a dividend on the investment, with secondary consideration only to the correct object of such an investment; i. e., the care of the sick. Such an institution, founded on a purely commercial basis, cannot represent the best there is in this work, and it is undoubtedly a menace to the community in which it exists. The people who patronize our institutions are not in a position to judge. Lay judgment is based, to a large extent, upon externals. To the general public, a hospital means a place for the care of the sick. It has no means of knowing the standards of the place to which it entrusts itself, and it is the patent necessity of estab-

[1]Paper read before the First Annual Convention of the Catholic Hospital Association, Milwaukee, June 24-26, 1915.

lishing such standards that brings us face to face with the problem of rating hospitals on a basis of group classification.

Such a classification is neither a new departure nor one that is confined to this field alone. Similar endeavors have been made, and will continue to be made by practically every worthy organization in the medical world. Reference is made to the medical world only because of its close connection with this field. Attention is called to the efforts of the Council on Medical Education of the American Medical Association in the establishment of grades "A," "B" and "C" schools; to the efforts of the Association of American Medical Colleges in standardizing teaching methods, and also to the efforts of the American College of Surgeons in establishing a recognized minimum of qualifications for those who would be recognized as surgeons.

There is, as in all things, another side to this matter. The question will be asked: who is to exercise the exceptional judgment and expert knowledge of conditions necessary to establish a standard for different classes of institutions under all conditions? Seemingly invidious comparisons will be resented. There has been, and will continue to be, some opposition to any plan, due in part to a lack of understanding as to the ultimate aim, and also due to a lack of desire on the part of some institutions to be graded. The inelasticity of any method of grading is fully recognized, but the benefits to flow from even a partial standardization are so very patent as to warrant every effort to secure their adoption.

Notwithstanding the mildly unfavorable aspect of this question, the benefits to be derived from the adoption of such a plan would more than compensate the hospital world at large for the disadvantages accruing to the individual hospital. Its adoption would provide a stimulus to institutional endeavor; would afford a uniform method for the collection of hospital data; would afford vastly additional teaching facilities; would enlighten not only the professional, but also the lay members of the community, and last, but not least, would impress upon all the three fundamental functions of the hospital; i. e., the cure of disease; the study of disease; and teaching the principles of disease; and by that impression and the consequent striving to maintain a standard established, increase the efficiency of each individual hospital, which is the ultimate aim of all.

Admitting as a fact the shortcomings of any basis of rating, but recognizing the consequent benefits, it is now necessary to establish the fundamental elements on which such a rating should be based. In the final analysis, the fundamental requirements group themselves under the following heads:

1. Medical staff.
2. Equipment of institution.
3. Personnel of staff other than medical.
4. Attitude of administrators.

There is no gainsaying the statement that the standing of the institution in the hospital world is reflected absolutely in the standing of the personnel of the medical staff. The administration of the institution may have unlimited energy, unlimited funds, high ideals, and all of the attributes of a high-grade hospital, but if they have not the hearty cooperation of a medical staff of equally high attributes, they will labor under a handicap that is practically insurmountable. It is a well recognized fact that the best results can only be obtained in any organization by the close unification of all of the working parts of that organization. This coordination should unquestionably prevail in the medical staff of the hospital just as much as in any of the other departments. Such unification, experience has taught us, cannot obtain in an open staff organization. There is no question but that the most scientific results can be obtained by a closed staff organization, but this is not always practical in its strictest sense. I do not wish to be placed in the position of advocating an institution establishing itself as a medical aristocracy. It is, however, an evident fact that an institution desiring to do the best work possible can only admit on its staff such men in the community as are recognized to be men of unquestionable character, sincerity, and ability. You would not hesitate to eliminate inefficient members of any other part of your working organization. The same striving towards efficiency should prevail with your staff.

The medical staff of an institution should be governed the same as any other group of workers, both from a medical and administrative point of view. There should be a chief of staff, and, if the size of the institution warrants, chiefs of service for the various divisions of medicine, these chiefs to comprise a council for the establishment of routine practices.

May I call attention to some of the benefits to be derived from such an organization? With such a council the nursing routine would be much simplified. Given a certain condition, this council could establish what should be done, thereby fostering a routine which in no way would interfere with securing the best of treatment for any particular case, but which would vastly lighten the burden of the nurse in carrying out the instructions of the physician, in that she would know in advance the routine established for that procedure. From an administrative standpoint, the burden would also be lightened. All of you have requests from Dr. A and Dr. B *ad infinitum*, which requests may all have been conscientiously made, but which, if carried out, would mean a duplication of equipment, or an expense that could not be borne, to say nothing of the possibility of expending money for some one commodity that would not do as much general good as something else. The avoidance of such complexities is a burden that should be partially borne by such a council. All administrators having the good of their institution at heart stand ready and willing to secure everything within their power to assist the medical staff in their work, but I for one want some assurance, both that the particular item requested is not a personal hobby of the member of the staff making the request, and also that it will not be used by him for a certain period of time and then discarded.

Now, as to the second function of the institution. How can an open organization even approximately accomplish the results in the study of disease that can be accomplished by an organization such as is outlined above? The compilation of medical statistics at best is a complicated procedure, and can only be successfully done by following a definite plan. No loosely organized body can establish such a plan and adhere to it.

The hospital in its infancy had very little, if any, equipment of any character. In view of the fact that the surgeons were the first to demand the services of an institution for the care of their patients under proper conditions, and assisted, in all probability, more than the other branches of medicine in creating a demand for hospitals, their needs were naturally looked after, not because of any desire to discriminate, but because of the fact that surgical cases make up the largest proportion of the hospital patients. This fact alone is responsible for the one-sided equipping of some hospitals. Even in this day you will see plans of hospitals that apparently are constructed

around an operating suite. This idea is ingrained so deeply that about the first point of interest most inspecting parties desire to see is the operating room, seemingly not interested in the other departments of the institution. This one-sided distribution of facilities is not fair to the balance of your staff. Your internist is entitled to the same facilities to assist him in his diagnosis and treatment as the surgeon. You cannot expect first-class, scientific work if you do not furnish the facilities to work with. The surgeon is entitled to everything that he has, and as much more as you can give him, but do not neglect the balance of your staff. A scientific dietary, good pathological and bacteriological facilities, the essential, at least, of hydrotherapeutic facilities, are just as necessary. With the advancement in radiographic apparatus no up-to-date institution should be content to be equipped for nothing but the taking of plates. There should also be facilities for screen and treatment work. The argument will be advanced that all of these items cost money, that money is a scarce commodity in a hospital. Unfortunately, we must consider the financial end of these matters, but also from a financial standpoint you cannot afford to have the medical profession of your community say that because of lack of facilities they are unable to do first-class work in your institution. Further, it is surprising how much can be done with limited funds. You need not establish an elaborate outfit in any of these branches. Exceptionally good work can be done with modest equipment, but modest though it be, the equipment should be installed with a view to enlarging the department as the demands of the institution warrant. Efficiency in any field of endeavor is based on end results. Your institution should not be content to discharge patients and then absolve itself of any further responsibility. A follow-up system is not always practical, nor is it always necessary. If there is any value in executing the instructions of the physician as to the after-care of the patient, then you must have your work so organized that you can follow up the patients and endeavor, at least, to persuade them to return for further treatment or instruction. Unless this can be done, the institution is not one hundred percent efficient. The statement has been made by a recognized authority on these lines that there are few institutions in the country fifty percent efficient because of this very fact.

Now, as to the personnel of your corps as a whole. Mention has previously been made as to the character of medical men who should be on the staff. The institution should go still further than this. It should accept more responsibility for the work of those men. The time is not far distant when it will be incumbent upon institutions to publish not only the financial, but the vital statistics in their annual reports. When that time comes, and the attention of the world at large is directed to the real work of the hospital, institutions will be obliged to assume the responsibility of their staffs, and consequently will be loath to take upon themselves the responsibility of the work of men who should have no claim upon the services of a first-class hospital. The best of equipment in every department stands for naught if proper direction cannot be furnished for the work. It is not always possible to have a salaried head for every department of the institution, but if you have members who are willing to devote their time and energy to the clinical side of the institution, you undoubtedly can secure the same character of services from laboratory workers. Establish your laboratories on a basis of unquestioned reliability. Do not be content with a makeshift arrangement. Place your diet kitchens in the hands of a person fully equipped to do the work. Make your medical staff know that when they order a certain diet for a patient, that diet, exactly as ordered, will be furnished. Provide such facilities as will insure the proper interpretation of your radiographic work. Organize your training school, not with an idea of getting cheap nursing care, but with the idea both of obtaining the best possible care for your patients and of preparing properly equipped young women to enter this field in life. Offer a curriculum that will attract only those who are earnestly interested in the work, and who are desirous of obtaining only the most efficient of training, and then insure their receiving that training by placing in charge of the department one who is qualified so to educate them. Offer your interns such facilities that you will attract the best of men from the best of schools, not those who could not make a place in another hospital. And, above all, inculcate an *esprit de corps*. Compel, by your actions, everyone in the institution to realize that your institution stands for everything that is good at all times and under all conditions.

These are the fundamentals of a basis for hospital rating. No hard and fast rule can be made; no absolute standard for all can be established. The highest standard of efficiency is all that is aimed at, and this aim can undoubtedly be reached, not only from a scientific viewpoint, but from a viewpoint of dollars and cents, by the adoption of a standard of what is right and wrong and what is good and bad by all of us.

After all is said and done, the full burden of an ideal institution rests with you administrators. After you have chosen your medical staff of the highest order obtainable, after you have furnished them with facilities for first-class work, it is up to you, not once in a while, but every day in the year, to keep burning brightly that flame of zeal and persistent devotion to the high ideals of the institution, which are so necessary in order to carry out the work. Know, yourself, that your institution is capable and will do the best work that it is possible to do within the limits of your facilities; bring those facilities up to the highest possible standard (and spare no efforts to do so); and then, by your example, make each and every one of the personnel of that institution, from the highest to the lowest, realize this every minute of the day. Then, and not until then, will you realize the significance of hospital rating.

Interdependence Between Hospital and Outside Work[1]

BY R. M. BRADLEY,
Trustee Thomas Thompson Trust, Boston, Mass.

There has been growing in the public mind a stronger consciousness that the hospital cannot be an isolated unit working independently in order to perform a certain function of usefulness, namely, the care and cure of those who come to its doors.

It has become more and more evident that the final test of a hospital's efficiency is not only how it handles the cases which it receives into its care, but what impression it makes directly or indirectly upon the *whole* sum of sickness and suffering in its community. From that point of view it can, under certain circumstances, be a total failure as to net results, while at the same time it is reasonably efficient in the details of its immediate work.

Just as we need a word to express the idea that a real hospital is not a building, but rather the work of a devoted body of men and women who happen to be occupying a certain edifice, so we need a word to express the gen-

[1]Paper read before the Conference of the American Hospital Association, San Francisco, June 22-25, 1915.

eral community work in preventing and handling sickness, in which work the hospital has its place. It is little or no credit to a community if a small part of its sick are well cared for and the balance grossly neglected, and the hospital must fill efficiently its proper place in a good general system covering the whole ground. With this more extended work the hospital work is interrelated in countless ways and the study of making those relations effective is only beginning.

The absorbing nature of hospital work produces with average human nature the defect of making the hospital too self-centered. This is something so natural to a hospital management that the intelligent hospital head must constantly fight against it.

In this conflict it is possible that you may be helped somewhat as well as irritated by what I may call the stupid layman's point of view, a point of view so detached from your own that in its very ignorance of the many things that you know to be of vital importance it may possibly cause you to see other aspects of the situation.

A canvass was recently made of two districts in New York City to ascertain, among other things, what impression the hospital work was making in certain classes of serious cases.

This canvass showed that out of a population of 17,000 86.6 percent of the cases of sickness were cared for at home and not in the hospital, and that out of the deaths from typhoid and pneumonia 70 percent of the typhoid deaths occurred in the homes, and 85 percent of the pneumonia deaths were in the homes, showing that a very large number of serious cases were not treated by the hospitals.

The question instantly presenting itself from these figures is: by what system of selection did the hospitals receive some of these cases and by what system of selection did they not receive others? If, as seems probable, they missed cases that were in desperate need of their services, was it because they were filled by cases still more desperate, or if not, what was the cause? In other words, what was their relation to the whole problem of sickness and suffering, and what place, if any, did they hold in the comprehensive system for handling that problem, if such system existed?

Another canvass was recently made of all ascertainable cases of sickness in a certain group of districts in Central New York containing in all some ten thousand people. The circumstances of all ascertainable cases of sickness, some sixteen hundred in number, were gone into, so far as their conditions were ascertainable, in order to find, among other things, what was the proper number of beds to provide in that community. The number of beds to be prescribed was figured out with great care and elaborateness from the cases apparently needing hospital care, but when conditions came to be analyzed the problem ceased to be in any degree so simple.

Areas were found where the cesspools taking care of an abundant water supply were closely intermingled with the old family well; whose sparkling waters possessed a tang lacking in the more insipid beverage offered by a town water company. Other areas existed where a sloping village site offered a succession of vaults and wells with the vault given the preference as to altitude.

Our figures called for additional hospital accommodation for the abundant typhoid patients, but maturer thought suggested that a few well adjusted drain pipes would probably be a more radical and less expensive remedy for that particular ill.

Similar veins of thought were opened in all directions. Certain poor girls had no proper accommodations in their confinement and more hospital beds were figured out. But was not a permanent asylum for these feeble-minded and helpless victims, where they could be permanently cared for and protected, better than additional accommodations to enable them to burden the community with more offspring like themselves?

Many families had no fit dwellings to live in, much less to be sick or to die in. Was the remedy better housing or more hospital beds? Some of us were tempted to ask in our haste, "Is the hospital bed to be the place where all our other senses of social obligations shall slumber undisturbed until the day of judgment?"

Of course the answer to this problem is that the hospital provision must be an indeterminate quantity, tending to increase as we learn and teach the people the proper uses of the hospital; and tending to diminish as we learn to apply effective methods of preventing disease, and as we learn to abate those social conditions that deprive too many of our people of real homes in which to die or be born. It will tend to diminish also as we succeed in developing a comprehensive system of home care that will prevent our hospitals from being overloaded with cases that could be cared for properly in the home, or could convalesce there under care, thus making room for more urgent cases.

To put things more concretely, some time in the future we may have correspondence somewhat as follows:

"To the Secretary of the Wisdom Bank Foundation.

Dear Sir: I am directed in behalf of the Citizens' Improvement Association of Anyville to seek your advice upon the problem of additional hospital accommodations for our city. A large increase of our population is taking place, as a result of the prosperity and expansion of our industries, and a number of our leading and public spirited citizens have requested us to ascertain what additional hospital accommodations should be provided for a town of this size, promising to contribute to a properly planned plant. Would it be possible for you to make an expert investigation of the situation and give us your advice upon that point? Respectfully yours,

J. SMITH, Secretary."

The following answer results after due process:

"J. Smith, Secretary of Citizens' Improvement Association,
Anyville, State of Average.

Dear Sir: Pursuant to the request of your association, several agents of our foundation have made a careful survey of conditions in your town, the results of which we herewith furnish you in detail in the appended exhibits.

With reference to your question as to the number of beds which a town of the size of Anyville should have for the accommodation of hospital patients, we offer a schedule of a few special accommodations which we believe should at once be added to your present plants in order to accommodate a certain limited number of cases that cannot now safely be admitted to those institutions and are a danger to the community if left outside.

In addition to that we would advise you that by instituting an inexpensive system of home care for convalescents the capacity of your present accommodations could, in our judgment, be increased by about ten percent, and another fifteen percent of capacity could be added by giving the same home care to a class of patients who are sent to your hospitals, not because of the nature of their trouble but because of the difficulty of obtaining responsible and efficient care at home. This home care if properly organized through a health center could be furnished at a smaller cost and without an expensive plant. We regret to find that in addition to these cases there are other cases in your hospitals who are there simply because it is the easiest place to put them, regardless of the fact that there are numerous cases vitally needing the service of your institutions, of which cases the managements appear to be ignorant.

Although we believe that the use of your present plants can be made some thirty percent more efficient, present conditions in your city are such that some one hundred beds, if provided, could at once be filled with patients who

have not now suitable care in sickness. The plant to accommodate these beds would cost some two hundred thousand dollars and their maintenance would amount to a charge of about $70,000 per annum, irrespective of physicians' services.

We hesitate, however, to advise you to undergo this expense without going into the following considerations: A certain proportion of these cases are due to entirely preventable causes; a large part of your city still clings to vaults and wells and a steady supply of typhoid is the result; the condition of your milk supply is neglected and in addition to occasional milk epidemics, the children's ailments are very numerous. Your state offers no sufficient asylum accommodations for a certain class of feebleminded women, and the calls upon your maternity wards are therefore unnecessarily large. Your people are uninstructed in the matter of avoiding the spread of contagious diseases and the work of your health officers is consequently largely perfunctory and ineffective.

One of the largest sources of candidates for hospital beds is due to your industrial conditions. Your prospering manufacturers are developing methods of organization that dispense as far as possible with skilled and well paid labor and make use of continually larger quantities of labor willing to take low pay and to put up with extremely undesirable living conditions.

Some twenty-five percent of your population is already of the kind where the family occupy three rooms and take boarders. Your housing regulations are inadequate and their enforcement is a farce. Your operatives' quarter is squalid, neglected, unsafe and unsanitary, and this condition seems to be on the increase rather than otherwise. It is obvious that a tenant of the usual dwelling in your main operatives' quarter has no fit place for either illness, convalescence or childbirth. If your city intends to perpetuate these conditions the providing of some hundred additional beds as a beginning would seem the conventional thing to do, as a step in the way of palliation.

If, however, the reduction of these conditions should commend itself to you as more humane and more desirable, we recommend a more conservative programme. This would embrace at the outset, only the slight addition to your hospital plant above specified and its more efficient use. It would require first a campaign of health education among your people through preventive medicine physicians, health officers and school nurses.

It would entail the removal of unsanitary conditions and reform in the administration of the health laws. There would also be needed better building laws, the forbidding of room crowding and the construction of decent and sanitary quarters for your wage earning classes.

It would necessitate the building up of a well organized health center, which would have for its function the bringing together under a competent head for effective team play of the school nurses and the various kinds of nurses, graduate and non-graduate, who look after the sick. Such a center would act as a natural clearing house for service in sickness, being the first place of call in case of any illness. It would insure, so far as possible, that the cases requiring institutional care should receive it as soon as needed and that the institutions should be promptly relieved of those cases no longer needing their service. This health center should not be a charitable institution or it will not be generally used. It should be a place where the average citizen can go in sickness to obtain help in meeting his emergency needs, and can obtain the kind of help required, whether household help or nursing, at a fair price. He would expect to pay his bills for this service as for his other ordinary requirements. Where charitable funds are needed to pay for nursing or other service they could be provided, not by nurses but by proper administrators of charity. The average citizen, however, will be found not to need or desire charity, but to require some simple form of benefit insurance that will enable him to carry his family through those sickness emergencies which entail large and unexpected expenses irregularly distributed. He requires this kind of insurance just as he requires insurance for fires, accidents, or death and other emergencies. If he is not employed by a parasite industry that does not expect to support its employees, he can thus be kept from becoming a candidate for charity either in or out of the hospital. Also by this method your system can be given a sound financial basis for a full development, being supported by the classes who support themselves and the rest of the country.

Those of your citizens, however, who can afford it will still have ample opportunity to benefit the community by furnishing funds for better plants; funds for research and development work and funds for better salaries and retirement funds for the now underpaid workers in the field of hospital and nursing work.

We are able in this letter to give only a bare outline of the course of action and system recommended, but we commend to you further study of its practical application elsewhere before a large amount of your resources are devoted to purposes that promise palliation rather than remedy.

Very truly yours,

H. F. JOHNSON, Secretary."

This is a very inadequate attempt to indicate the bearing of the larger problems involving the hospital. The question of what effect your hospitals are having on the whole problem is going to become more and more insistent and you have got to do your part in answering it. It means that more of you have got to be able to answer questions as to what happens to the cases that you do *not* get, and as to why you have so many cases put upon you that are not the ones most in need of hospital service.

I venture to bring to your attention one form of tabulated report that would tend to bring out how far your hospitals are answering this question of efficiency of *use* as well as those of efficiency of operation.

In almost every hospital there are the following classes of cases: The first I may call real hospital cases, namely: those that cannot without undue trouble and expense, or without danger to the community, be cared for outside of the hospital. There are plenty of these, if you only get hold of them, to occupy all the hospitals that we can maintain.

There are other cases that seek to enter the hospital for various reasons, such as for the convenience, financial or otherwise, of the family; for convenience of the doctor, because outside of the hospital there is no adequate provision for nursing or care, and because the patient has no proper home to be sick in, etc.

These cases could be classified and tabulated as follows: real hospital cases, defective care cases, defective home cases.

There is another classification, namely that of the hospital days during which hospital patients are kept in the hospitals while convalescing because they cannot be sent out to proper conditions at home either from lack of organized care or lack of proper home conditions.

I do not know how many of you will venture to make such a classification, but I do know that any hospital that does make it and makes it without fear or favor will add substantially to the efficiency of that hospital.

In addition to this I bespeak your sympathy and attention to the efforts that are now being made to coordinate and make effective in something like a comprehensive system the forces that have to do with prevention and handling of sickness both within and without the hospital.

We need a system that will cover the whole ground, not fragments of it, and we need to have the hospitals and their graduates take their proper places in organizing that system.

The stupid layman wants to know what impression you are making on the whole job, and you have got to answer that question.

Hospital workers in the state of Ohio are to form a State Hospital Association, the initial meeting for the purpose to be held at Cedar Point on August 25 and 26. Dr. E. R. Crew, of the Miami Valley Hospital, Dayton, is taking the initial steps and has promises of the attendance of most of the hospital workers of the state. Numerous attempts have been made to form state hospital associations, but none of these efforts have proven successful beyond a very local character and generally for the purpose of some particular temporary interest.

CURRENT HOSPITAL LITERATURE

ALBERT ALLEMANN, M. D., Foreign Literature.
Army Medical Museum and Library, Office of the Surgeon-General United States Army.

Aberdeen Military Hospital. The Nursing Times, 1915, II, No. 531.

Oldmill Poorhouse, at Aberdeen, has been completely transformed and fitted up as an up-to-date military hospital, with accommodation for some 850 wounded soldiers. The former inmates are now scattered among the poorhouses in various parts of Scotland.

Scottish Women's Hospital for Foreign Service. The Nursing Times, London, 1915, II, No. 531.

The Scottish Women's Hospitals have now five hospitals under their control, one of 200 beds at the Abbaye de Royaumont, and another of 200 beds under canvas at Troyes. In Serbia they have a surgical hospital at Kragujevatz, a fever unit at Mlandavatz, and another fever unit of 200 beds at Valjevo. They are shortly sending out another hospital of 200 beds to Serbia.

Bangour Military Hospital. The Nursing Times, London, 1915, XI, No. 533.

The Midlothian County Asylum, known as "Bangour Village," has recently been taken over by the military authorities and preparations are being made for the accommodation of 1,350 patients. Bangour, laid out on the plan of a modern garden city, is situated on the uplands, midway between Uphall and Bathgate, some fifteen miles west of Edinburgh. The former patients—more than 1,000—were distributed among kindred institutions in Scotland.

Hut Wards in London. The Hospital, London, 1915, LVIII, No. 1510.

The public has been asked to furnish these huts with easy chairs, cushions, books and flowers. When completed they will add 300 beds to the capacity of St. Thomas's Hospital. The editor suggests that hospital architects should learn many lessons from the different types of emergency or temporary wards and open-air hospitals necessarily so prevalent today, and predicts that the war will leave its mark on hospital design and architecture.

Provision for War Cripples in Germany. Douglas C. McMurtrie. Medical Record, 1915, LXXXVIII, No. 5.

Germany has inaugurated an extensive system to provide, surgically and economically, for wounded soldiers crippled in action. At the outbreak of the war, the first reliance was placed on the adaptation of existing agencies for the care of cripples. Dr. Konrad Biesalski, secretary of the German Association for the Care of Cripples, visited the various institutions throughout the empire and organized the work under (a) medical care (orthopedic and surgical) and (b) social care (teaching of trades and securing employment). The Kriegskruppelfursorge has now reached such proportions that Dr. Biesalski has turned over its further organization to the military authorities, thus securing uniformity and permanence of the work throughout Germany.

Hospital Etiquette. The Nursing Times, 1915, II, No. 531.

Hospital etiquette entails a certain training, but the writer feels that, as a root basis, it requires good manners, self-restraint, watchful alertness, and a kindly respect for the feelings of others. We are reminded that an institution is sometimes entirely misjudged by the bad manners and ignorance of some individual members of the staff, while, on the other hand, a smiling welcome extended to a humble wayfarer has often brought a blessing to a whole hospital.

Injuring a Sanatorium by Sewage (Schädigung einer Kuranstalt durch Abwässer. Zeitschr. f. Krankenanst., Leipzig, 1915, XI, No. 15.

The following case came up for decision before the German courts: The sewage and refuse from a factory was turned into a creek which flowed close by a private sanatorium. As the foul odor from the creek was seriously affecting the institution, the proprietor appealed to the courts for redress. The two lower courts rejected his complaints as irrelevant, but the supreme court decided the case in favor of the plaintiff, as it was shown that the purification plant was inefficient and that the impure water entered the creek not more than 150 meters above the sanatorium.

A New Bed for Nurslings (Ein neues Säuglings-Bett). R. Bickel. Zeitschr. f. Krankenpfl., Berlin, 1915, XXXVI, No. 10.

The bed is made of enameled iron and is fastened to a strong stand whose foot extends under the bed of the mother and is provided with rollers. The bed projects over the mother's bed and can be lowered or raised and turned in any direction, so that the mother can tend to the baby without the least inconvenience. The bed is covered with a strong enameled wire screen which can easily be turned back. By placing a sheet over this screen the child is protected from the light and from flies, mosquitoes, etc. When not in use the bed can be folded up, thus taking up a very small space. In the article are seven illustrations of the bed.

A New Form of Bed Spring (Eine neue Krankenbett-Matratze). M. Weber. Ztschr. f. Krankenpflege, Berlin, 1915, XXXVI, No. 10.

Numerous forms of bed springs have been constructed, but few have given satisfaction. This new form of spring has the usual rectangular iron frame. Eight strong steel springs made of the best material extend from one long side to the other in such a manner that they form a convex upper surface. These springs are connected with each other by numerous hooks. Resiliency in the long direction is obtained by a number of strong spiral springs at the head and foot ends of the frame. The advantage of the vaulted form of these springs over the usual types is evident. The description is made clearer by two illustrations.

The Opportunity of Large Clinics in the Campaign Against Cancer. Jonathan M. Wainwright. The Pennsylvania Med. Jour., 1915, XVIII, No. 10.

Dr. Wainwright firmly believes that if the hospital and its staff would get into closer and more confidential touch with the physicians of its cancer patients, mortality could be greatly reduced. Dr. Bloodgood, at Johns Hopkins, is mentioned as being the first surgeon to adopt the plan of inviting the attending physician to the operation, com-

plimenting him if the case is sent in early; or, if a late one, tactfully calling his attention to the conditions by which the disease could have been recognized earlier and explaining how much better results could have been hoped for if there had been no delay. Hospitals and their staffs who will apply the "Bloodgood method" actively will greatly increase their service to their communities.

Experiences Concerning the Discharge of Insane Patients from the Hospital Against the Advice of the Physician (Erfahrungen über die Entlassung Geisteskranker gegen ärztlichen Rat). Dr. Treiber. Allg. Zeitschrift f. Psychiat., Berlin, 1915, LXXII, No. 1.

During the last ten years 29 male and 56 female patients were discharged from the Landsberg State Hospital for the Insane against the advice of the director. Of this number 7 males and 25 females were completely cured after they left the hospital, 7 men and 12 women were greatly improved, 9 patients died at their homes. Concerning the remainder no information could be obtained. The author comes to the conclusion that the directors are often too strict in refusing the request of families to discharge certain patients. He thinks that patients who promise even a poor prognosis sometimes get well rapidly at home, or at least improve. He mentions that Tomaschny and Uhlmann, who have studied the same question, came to the same conclusion.

The Establishment of Schools for Sick Children in the Hospitals (Dell' istituzione di scuole per bambini degenti negli ospedali). Dr. R. Maffei. Ospedale Maggiore, Milano, 1915, III, No. 5.

Children of well-to-do people, who are compelled to stay away from school on account of sickness, can easily make up the deficiency after their recovery. It is different with poor children. A year lost in school is lost forever. For this reason the hospital S. Maria Nuova in Florence established in 1909 a school for its children patients, which has been carried on with good results ever since. There is also a kindergarten for the small children. Such a school exists also at the Bonifazio Hospital of the same city. This hospital receives principally children who have been declared incurable at the Pediatric Hospital. Elementary instruction is imparted to these children, that they may not be without the light of modern education.

Prohibiting the Establishment of a Tuberculosis Sanatorium Near Summer Resorts by the State Authorities (Behördliches Verbot der Errichtung einer Lungenheilanstalt in der Nähe von Sommergast- und Logierhäusern). Heilanstalt, Leipzig, 1915, X, No. 11.

A physician intended to establish a sanatorium for tuberculous patients in a region containing a number of summer resorts. As the law does not permit the establishment of a tuberculosis hospital if the neighboring property is injured by such an institution, the proprietors of the health resorts appealed to the state authorities. The latter decided the case in their favor, holding that though there may be no danger of infection, the business of these summer hotels would be injuriously affected, since the fear of infection, though only imaginary, would keep the people from frequenting such resorts.

The Detention House in Hördt, Alsace (Das Bewahrungshaus in Hördt, Elsass). Dr. J. Haberkant. Psychiat.-neurol. Wochenschr., Halle a. S., 1915-16, XVII, No. 11.

Of late years a number of detention houses for dangerous insane patients have been erected. This is only the inevitable reaction to the great extension of the no-restraint movement, and it shows that there is a limit to this method of treatment. Fortunately there are very few patients for whom the ordinary safeguards of our hospitals for the insane are insufficient. Aschaffenburg states that there is only one dangerous insane person to 50,000 inhabitants. But the conviction is gaining ground that every large hospital for the insane should have a safety division. The detention house at Hördt was erected in 1912, and has room for 42 patients. It is a handsome one-story building of rectangular shape. The large garden is surrounded by a wall fifteen feet high. The rooms are built in such a way that all corners are filled out by an oblique wall. All tubings for heating, electricity, etc., are hidden in the walls. The radiators are placed in niches below the window and closed up by iron doors. Other safety devices are an alarm apparatus, telephone and an electrical control clock. The eating vessels, drinking cups, etc., are made of paper.

The X-ray Pavilion Under Construction at the Ospedale Maggiore in Milan (Il padiglione di radiologia in costruzione all' Ospedale Maggiore di Milano). Dr. L. Parola. Radiologia med., Pavia, 1915, II, No. 3.

The x-ray has of late years acquired so much importance and so great an extension in all branches of medicine and surgery that specialists of great experience and the most perfect apparatus are necessary for its application. Through the generosity of an unnamed benefactor the Ospedale Maggiore in Milan has been enabled to erect a radiological pavilion of the most modern type. It will be devoted exclusively to diagnosis and x-ray treatment. The pavilion is of two stories and is provided with all the facilities and the most modern appliances for accomplishing its purpose. Of special interest is the fact that the first floor contains five sick rooms with 16 beds in all. These rooms are intended to receive patients who require special preparation before submitting to a radiological examination or such patients who, on account of their condition, cannot be returned to the various pavilions after each application.

A Visit to the Military Hospitals of Paris (Ein Besuch von Lazaretten in Paris). Dr. J. Eberhardt. American-Swiss Gazette, N. Y., 1915, July 14.

A large number of wounded are cared for in the great hospitals, Hôtel-Dieu, Pitié, Salpêtrière, Cochin, Beaujon, Necker, Val de Grace, etc. But the number of the wounded is so great that nearly 400 hopitaux auxiliaries had to be established. Large hotels, new school houses and public buildings were converted into hospitals with great skill. One of the finest of these auxiliary hospitals is the American ambulance established in the Lycée Pasteur at Neuilly. It is remarkable with what skill this enormous building has been changed into a modern hospital. The large lecture rooms have been converted into sick wards, which receive light and air from two sides. Each ward has three American nurses and two assistant nurses. There are two operating rooms, a bacteriological laboratory and a Roentgen institute. The surgeons are all Americans. Prominent among them is Prof. Cushing, of Boston, the noted brain surgeon, who has obtained remarkable results by his methods of operation. This hospital contains at present 600 wounded soldiers.

Of special interest is the Japanese hospital established in the Hotel Astoria. It has Japanese physicians and nurses, and the furnishings, instruments, etc., are entirely Japanese. The Russian hospital was established by the empress of Russia. It is under the direction of Dr. de Martell. Many ladies of the diplomatic corps at Paris are doing nurses' work at this hospital.

Dr. Carrel, of New York, is at the head of a hospital near Compiègne. He has a complete bacteriological institute and is assisted by two bacteriologists. He is at

present engaged in finding a method to combat suppuration of wounds which is so common in the present war.

The Control of Communicable Diseases. Dr. Eugene R. Kelley. The Amer. Jour. of Public Health, 1915, V, No. 7.

In the light of the gratifying and astonishing achievements of the past half century few now doubt the literal truth of Pasteur's statement, "It is within the power of man to abolish contagious diseases from the earth." Dr. Kelly is convinced that a complete realization of the vision and actual abolishment of all contagious diseases depends entirely on the willingness of mankind to pay the price. To his mind the principal factors in the successful solution are:

1. A smoothly working system of prompt reports of all communicable diseases to the health authorities from the physicians.

2. A carefully worked out routine system of study, and prompt investigation of all outbreaks by the health authorities.

3. Regulations for the isolation and supervision of persons suffering from contagious diseases, based upon both common sense and scientific knowledge and the principle of maximum protection to the public with minimum inconvenience and hardship to the patient and family.

4. The safeguarding of certain important channels of disease transmission, especially the water and milk supplies.

5. The widest possible utilization of certain public health machinery designed expressly to combat communicable diseases, viz.:

(a) The public health laboratories.

(b) The dispensary and hospital for contagious diseases.

(c) Public health nursing organizations.

(d) School medical inspection, so-called; or, better, hygienic school supervision.

6. The greatest of all forces at our disposal, that of education along public health lines, especially education of children and mothers, by

(a) The public press.
(b) Individual teaching.
(c) The schools.

The New Municipal Hospitals in Barmen (Die neuen städtischen Krankenanstalten in Barmen). Gesundheit, Leipzig, 1915, XL, No. 12.

The new Barmen hospital is considered a model institution by experts in hospital construction. It is built on the pavilion plan, but all the buildings are connected with each other by one-story corridors. The five principal buildings have three stories each and each one has room for 120 patients. The hospital can thus take care of 600 patients, but there is room for 900 beds if necessity requires. The administration building and all the pavilions are heated by a central hot water heating plant. The hot water is carried through pipes in connecting tunnels to each building. A centrifugal pump driven by a steam turbine sets the water in circulation. The pump is placed in the circuit in such a manner that it sucks up the returning cold water and drives it, after having again been heated in the boiler, back to the peripheral parts of the system. Ventilation is accomplished by a centrifugal ventilator, which sucks the fresh air in from a small tower standing in the garden, and drives it through a dust deposit chamber, and, after being heated to 20° C. by special heating surfaces, to the various rooms. For economical reasons the hospital does not have its own electric plant, but gets its electric current from the municipal electricity works.

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DEPARTMENT OF NURSING

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The San Francisco Nurses' Meetings

Eastern delegates and visitors to the eighteenth annual convention of the American Nurses' Association in San Francisco were made to feel that their entire trip from the Atlantic seaboard to San Francisco was one continuous reunion and meeting. Upon their arrival in Chicago they were given a most cordial reception and were taken for a ride about the city, after which they were invited to tea in the Central Club for Nurses.

Again there came the kind invitation from the nurses of Los Angeles County to the visiting nurses to be their guests at the Mission Play on Thursday afternoon, June 17.

The whole body of nurses was transported in special cars to the San Gabriel Mission, just out of Los Angeles, where the play was given. It proved a most enjoyable and interesting occasion from an historical and ethical as well as religious point of view.

Los Angeles County nurses will long be remembered for their hospitality and for the opportunity they gave the travelers to enjoy this great treat.

The nurses' train arrived in San Francisco on Sunday morning, June 20, and it may be said that the sessions began that day, for there were several belated committee meetings held during the morning because appointments for them could not be kept earlier. The convention, however, opened its meetings with the sermon by Rev. C. F. Aked, D. D., LL. D., in the First Congregational Church. The service was an address full of sympathy and understanding of the work of the nurse, and was listened to with appreciation by the large congregation of nurses present.

Three organizations, separate and distinct, were convened, namely: (1) The American Nurses' Association; (2) The National League of Nursing Education; and (3) The National Organization for Public Health Nursing.

On Monday morning, June 21, the regular convention opened in the First Congregational Church by registration of delegates and reports of the various committees in the different associations, which all came together at 8 p. m. of that same day for the more formal meeting of a general session, Miss Cooke, president of the American Nurses' Association, presiding. The address of welcome was given by Mrs. Frederick G. Sanborn, president of the Woman's Board, Panama-Pacific Exposition, and responses were offered by Miss Goodrich, president of the International Council of Nurses; by Miss Cooke, president of the American Nurses' Association; by Miss Noyes, president of the National League of Nursing Education; and by Miss Crandall, executive secretary of the National Organization for Public Health Nursing, speaking for Miss Gardner, the president, who was detained by illness.

The tone of the meeting was most cordial and some very resonant notes regarding nurse education were struck by the various speakers. Dean Gresham, of Grace Cathedral, spoke significantly and feelingly along the same line. Altogether it was a meeting which caused the nurses to look upward and step a little higher for very pride in their officers and their accomplishments.

The National League, as well as the other organizations, continued their sessions throughout the week, discussing their various problems with candor and intelligence.

It would be impossible even to enumerate the subjects covered, but perhaps that which called for the greatest enthusiasm was "The Eight-hour Law for Pupil Nurses in California." Mrs. H. W. Pahl, superintendent of Angelus Hospital, Los Angeles, gave an able paper and opened the discussion, taking the ground that while the observation of the law crippled the hospital to a certain extent in the beginning, it seemed now to be to the advantage not only of the school, but of the hospital as well. It seemed to be the consensus of opinion that the hospitals missed their opportunity in not granting an eight-hour day to the pupils in training before they were compelled to do so by the law, which is the result of legislation effected by the labor unions. A strange and selfish feature of the law is noted in its failure to shorten the hours of graduate nurses in private practice. Some of the superintendents working under the law agreed that it tended to lawlessness.

The fact remains that the same results should have been obtained without resort to labor legislation.

The League also devoted time to discussion of plans and furnishings for class rooms; what constitutes good teaching; how to help pupils to study; the teaching of housekeeping in the training school; the social life of the student nurse; training school records, etc.

The meeting on Tuesday evening, June 22, in Festival Hall, on the grounds of the exposition, well-nigh failed to measure up to the high standard set by the sessions elsewhere. The programme was a mixed one in that it consisted of music and addresses by educators of more than local reputation.

As another has said, "The nurses had the pleasure of listening while they were freely discussed—an unusual opportunity." The theme of the chief speaker of the evening was "The Vocational Trend in Education." The audience had reason to expect from him, as commissioner of vocational and industrial education in the great state of California, a clear and uplifting discourse upon matters educational, and may be pardoned for an ill-concealed disappointment felt by nearly every nurse present. Their disappointment was largely overcome by an address by Dr. Downing, Assistant Commissioner of Education for the state of New York. Dr. Downing was in the audience and responded to the call of the chairman of the evening, Miss C. D. Noyes, whose wisdom in calling him will long be remembered.

Dr. Downing very thoroughly refuted the idea previously advanced that time spent upon subjects having no direct relation to work is wasted, and he did it in a way and with an enthusiasm that left no doubt in the minds of his hearers. The thanks of the nurses of this country should go out to Dr. Downing for his encouragement and to Miss Noyes for meeting the emergency by calling him.

The meetings were splendid and were helpful to an unusual degree. Delegates felt their inability to absorb but a small fraction of the knowledge put forth by the various departments and sectional meetings, though they must have heard that which fitted their needs to some ex-

tent. There seemed something for every kind of worker in the field of nursing and its allied subjects. Round tables, conferences and discussions were bulletined for almost everyone and for every hour of the day; even the fathers and mothers might have profited.

The social events must not be overlooked. The social hour, when tea was served by the California nurses each day from four to five in the afternoon, will be long remembered as a great pleasure, a rest, and an opportunity to renew old acquaintances or make new ones.

Those of us who had the honor to serve our alumnæ as delegates resolved anew to continue as permanent members in order to secure for ourselves the privileges of the conventions as they occur from year to year.

For enthusiasm in our present work, and for inspiration for the future, the Convention of 1915 at San Francisco has had no peer.

Public Health Nursing

"A public health nurse should know something of sanitary engineering. There are many holding such positions who are merely trained nurses, who know nothing about preventing sickness. In five or ten years every board of health will employ a dozen public health nurses and that will mean excellent opportunities for women. The public health nurse is especially valuable in the country, where questions of water and milk supply, cellar and housing conditions need to be taught. The work requires both knack and training. No amount of training will save a stupid person; no amount of knack the ignorant person."—*Professor William T. Sedgwick, at the Conference on Vocational Opportunities.*

The speaker of the above in no sense purposed urging more advanced education for nurses as such. That he does so is incidental to the fact that he is advocating the employment of public health nurses by health boards.

There is a train of thought and reasoning suggested for a whole lecture or sermon in his last sentence—"No amount of training will save a stupid person; no amount of knack the ignorant person."

It has long been the plea that good material must be admitted to our training schools if good representative nurses are to be the output.

It rather looks, to the careful observer, as if the whole matter might adjust itself or be adjusted by the demands made upon the public health nurse in addition to those made by her. It may be said that not all nurses aspire to be public health nurses. True, and neither do a great many applicants to the schools of nursing aspire to be much of anything excepting that which lies within the present or within the two or three years of training; they have little thought for the future and they consequently thus prove the necessity for careful selection of applicants as well as thorough education.

The average teacher of nurses has this principle so indelibly impressed upon her mind, with all the reasoning of its pros and cons, that when she hears Professor Sedgwick say, "No amount of training will save a stupid person; no amount of knack the ignorant person," she is ready to exclaim, *"Quod erat demonstrandum!"*

What Should Hospital Dietitians or Dietitian-Housekeepers Be Taught, and How Should They Be Trained?[1]

BY LAURA E. COLEMAN,
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The demand of the present hospital world is for standardization—standard nomenclature, standard records, standard accounting, standard equipment, standard education for nurses, standard ideals. Is not this great body of hospital superintendents and trustees assembled for but one purpose—the standardization of hospitals in every department, by interchange of thought and plans of work, each giving to the other the best of experience and result in their special field? Why should there not, therefore, be a standard for hospital dietitians?

Within the past twenty years a great change has come over the educational side of hospital work. The length of a nurse's probation has been increased from one or two months to three or six months; her time of training from two to three and, in some schools, even to four years. The standard has been raised slowly but persistently. The nurse-in-training *must* have had one year at high school, or, better still, she must have graduated from high school. Trained teachers have, in all schools that can afford them, replaced the old-time graduate-nurse teacher, who taught what she knew and taught it well, too, but who often had no special training in the proper method of imparting that knowledge to others.

Trained dietitians are filling the place made for them as a result of the recent attitude taken by physicians toward food and its effect upon the human body. Fifteen years ago little was heard even in our best managed hospitals about food-value, calories, carbohydrates, etc., and a good steward, with a chef and his staff, supplemented by the work of the nurses-in-training on the ward floors, was considered sufficient. An occasional staff physician gave special attention to his patient's food, but with nothing of the definiteness of the present day, when even the smallest hospital has to meet this demand for every variety of special diet.

All nurses-in-training had, even twenty years ago, cooking lessons in which beef-juice, custards, jellies, toasts, liquid diets and gruels were the predominating features.

Today a pupil nurse is taught in a course of from ten weeks to three months the preparation, constituents and caloric value of foods for patients and the hospital household, and the proper way to measure and serve them. Before she leaves the dietary department she learns, or should learn, to prepare a well-balanced diet for any patient—salt-free, diabetic, fat-free, etc.—and if the dietitian is the woman for the position, the young nurse will also learn the cost and quality of foods, relation of supply and demand; and not least of all, when entrusted to assist with the checking of this, the heaviest expense-sheet of a hospital, she will learn how so to care for and dispense these foods that each shall reach its proper destination, suitably prepared, and so palatable that there will be little waste because the patient "did not like the food," and absolutely no waste from carelessness in dispensing.

Intelligent nurses-in-training require intelligent, well-trained teachers; and this, for one thing, the dietitian must be.

In a thirty to sixty-bed hospital the question "how and what shall patients, officers, interns, nurses and our faithful domestics be fed," is just as important as the same question in a hospital of a thousand beds. The same problems of feeding patients present themselves in small hospitals as in large ones. One patient taken into any hospital deserving the name is as worthy of careful feeding as are a hundred such patients.

Many thirty to forty-bed hospitals have not a trained dietitian, but someone must do the work intelligently, and it is upon the already overworked superintendent of the small institution that this grave responsibility rests. Armed with her long, or short, training in hospital dietetics, she grapples with the question and in most cases

[1] Paper read before the Conference of the American Hospital Association, San Francisco, June 22-25, 1915.

grapples intelligently; for what she has forgotten, or perhaps never knew, of calories and food-values, she makes up for by study and preparation, her mind being trained to meet just such extra demands. Then comes the luxury of a dietitian-housekeeper, for in the smaller hospitals, usually because of economy in salaries, the positions are combined. Besides, there would be insufficient work in a small hospital in either department to keep a woman, mentally active, contented with one position alone.

With a trained mind, such as a dietitian should have, and with the executive ability a hospital dietitian must have, she can readily do any hospital housekeeping by an additional short course in laundry management; for this, of course, is the crucial point in hospital housekeeping. With the splendid training she will have had in asepsis and absolute cleanliness, in her general domestic science course as dietitian, and with some knowledge of laundry work, counting that she has ability to manage people, the housekeeping will be very easy, so that on that side of the work I shall touch but lightly.

There is but one dietitian for any hospital, large or small, and that is the trained dietitian.

What shall she be taught? She shall be taught dietetics in all its branches: foods, quantity, quality, cost, value to patient, scientific distribution under a physician's orders; everything, in fact, that affects the well-being of a patient or household in the matter of proper feeding. This course of training should not be less than two years, and, if any academic work is attached, it should, as in several colleges and schools of domestic science, reach to four years. Surely two years, however, is little enough for anyone engaging in this so important a branch of hospital work, to give to her training. The physician gives five to eight years to his training; the trained nurse gives three years of arduous, continuous labor to her work; why should the hospital dietitian, who, by badly prepared foods, can undo all the good work of the physician, give so much less, as is sometimes the case?

In a letter to me regarding this paper, the writer stated that one superintendent had said that the dietitians sent him by a domestic science school were so very young and impractical that, added to a training school of young women, it merely made one more responsibility; and that thereafter he would employ only mature, practical dietitians.

I sympathize sincerely with him, as in the first hospital of which I had charge, a small hospital of thirty beds, I came to the same conclusion. From two of the best training schools I tried dietitians who, of course, took the position of dietitian-housekeeper. They could talk most intelligently and scientifically on food-values, could arrange and display all kinds of desserts and salads, knew to a degree the caloric value of foods, theoretically; but they lacked judgment—judgment as to quantity for thirty patients, nurses and hospital household—judgment as to care of and ordering of food-supplies. A vegetable garden was to them an untried field. They counted vegetables only in bushels and baskets, or bunches, as they had seen them in the domestic science schools. They were excellent theorists, but their extreme youth and total lack of practical experience was very discouraging.

I then decided that the domestic science training-schools were to blame entirely for turning out and recommending to hospitals needing dietitians an unfinished product, to complete her training at the expense of the hospital; but I now believe that a word of our needs to those schools would have given them an opportunity to help solve the problem.

Perhaps the lack of hospital ethics which they displayed was not the least trying part of their failure to fill the situation. They had been taught no sense of responsibility as to time. Fifteen minutes earlier or fifteen minutes later carried to them no grave responsibility.

Like the superintendent of whom I have spoken, I then decided that a trained dietitian was not for a small institution, and I engaged a practical dietitian-housekeeper of mature years and judgment—one who could utilize the asparagus and other vegetables from our own garden and could preserve or can fruits purchased in quantities, when such fruits were seasonable; in fact, one who, except for the fact that she knew nothing of calories and food-values, could give our patients well-cooked porridge, delectable gruels, perfectly-broiled steaks, and vegetables that it is a pleasure to remember. She was also an ideal housekeeper. The special diets, however, had to be arranged and planned by the superintendent of nurses. The nurses-in-training took their practical work in housekeeping with the dietitian-housekeeper and were sent to Miss Fannie Farmer for their cooking lessons and special dietary work.

For a small hospital this did solve the problem, but from broader experience I have quite changed my mind. I find that to administer a hospital of 150 beds, or five times the original unit, there must be a housekeeper *and* a dietitian, and that the dietitian must be trained, and well trained.

Where should she be trained? I believe hospital dietitians should be trained in some one of the many perfectly equipped domestic science schools or colleges for not less than two years, and that for at least six months this training should be supplemented by a practical course in hospital dietetics in some one of the many good hospitals of this country. For at least one month of this time it would be well if she could be given entire charge of the department.

The demand always creates the supply. If the members of this Association would appeal to the domestic science schools of the country for this extension course for would-be hospital dietitians, assuring them of cooperation in affording their qualified pupils an opportunity for this course of practical work, I believe they would be only too glad to do it.

As in our training school for nurses we select, from a class of fifteen or twenty, two or three, or maybe but one, who will make a good executive, and add her to our junior executive force, for practical experience in hospital work, so I believe these domestic science schools might select the three or four pupils from each class who show signs of executive ability—mature pupils with tactful, well-balanced minds, wishing to qualify for hospital work, and recommend them for this hospital extension course. If this were done, I am convinced that hospitals, both large and small, would fill dietetic vacancies with less waste of energy and efficiency.

In the hospital of which I have charge at present, we have tried this plan. Our present dietitian was trained for two years in a domestic science school which already sends out its pupils to one of the large hospitals for hospital experience. In addition to this she remained one year as junior dietitian in the hospital giving the practical course. She controls her kitchen force, selects and cares for the food-supplies, is responsible for all foods, teaches the nurses theory in classes, and two, who are with her continuously, have their experience in applied dietetics. This she does in a businesslike manner. Of course, in a hospital of 150 beds, she does not do the housekeeping, but were the same woman in a hospital of fifty beds, she would manage the entire domestic force, administer the housekeeping and, with a short course in the one trying spot in

housekeeping—the laundry—would do it easily. It does not seem to me that this would be practical if the domestic science schools would recommend for this extension course only those showing the proper qualifications for hospital work.

I have written several of the domestic science schools regarding a special hospital course in dietetics, and find that some of them already have a limited course, and that the schools themselves are giving thought to this subject. I quote from one school head who says that they give a normal course with dietetics, and a housekeeping course with dietetics. "But," says the director of the Domestic Science School, "I think a combination of both courses would be best for a hospital dietitian." "And," she continues, "I think graduates of such courses as ours are not prepared for independent dietitian work in hospitals because of their ignorance of hospital discipline and conditions. This is probably at the back of the friction we so frequently hear of between hospital superintendents and dietitians. Probably the best preparation for a dietitian would be hospital training and experience, followed by a good normal or housekeeper's course in home economics. Failing this, the next best thing is a good course in home economics followed by pupil dietitian or apprentice work in good hospitals. A satisfactory course I think would be easy of arrangement.

"It is my experience that as yet we have no standards for hospital dietitians. Each hospital is a law unto itself with regard to the work a dietitian is expected to do. It may range from all the buying and housekeeping for the hospital to a mere matter of preparing and sending up private patients' trays. If your Hospital Association will discuss this and point out the wisdom of hospitals' furnishing training schools with a clear outline of the duties demanded, it will help the cause of dietitian training materially."

Another director of dietetics says: "Occasionally one of our regular seniors wants to go into hospital work, and we invariably advise such a student to take training as a student dietitian. We feel very strongly that we cannot give, under collegiate conditions, anything which approximates the broader training for hospital work."

Teachers' College, Columbia University, says, in reply to the question as to feasibility of a practical Hospital Course for Hospital Dietitians: "Such a course of training in a hospital is not only practical, but highly desirable, and with suitable cooperation from the hospital could easily be arranged."

It would seem to me, therefore, from my own personal experience and the data I have collected, that qualified hospitals have but to offer this extension course to the domestic science schools for their would-be hospital dietitians, and the problem is solved.

I lay the matter before you for your consideration.

The More Common Diseases of the Kidney

BY HENRY F. KEEVER, M. D.,
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ACUTE NEPHRITIS

Acute nephritis (an acute inflammatory condition of the kidneys) may be due to the action of cold or of toxic agents upon the kidneys, causing changes in the epithelial, vascular and tubular tissues. It may follow exposure to cold, especially when associated with alcohol, or may be due to the poisons of the specific fevers, such as scarlet fever, typhoid, diphtheria, pneumonia, tonsilitis, etc.

Toxic agents, such as turpentine, potassium chlorate, carbolic acid and urotropine may cause an acute congestion which may terminate in acute nephritis. Sometimes it follows severe burns or extensive skin lesions.

Symptoms. The onset is usually sudden, especially after exposure to cold. After fevers the onset is more gradual, with puffiness of face or ankles. The urine changes are characteristic. The urine is scanty, high-colored, with blood, albumin and casts. The quantity may be 4 to 5 ounces in 24 hours. Specific gravity is high, 1.025 or more; color varies from a smoky to a deep red brown; albumin is abundant, and the sediment contains leucocytes, blood and casts.

The onset is sometimes insidious and may be accompanied only by slight edema.

Prognosis. The outlook varies with the cause of the disease, and usually leaves a damaged kidney.

Treatment. Since the kidneys are damaged, they should have rest. Elimination must take place through the skin and bowels. The patient *must be kept warm.* In pneumonia, especially in young patients, we stimulate with cold air, but in nephritis warmth is always indicated.

The diet consists of milk, gruels, bread, butter, oranges, grape-fruit, cereals and rice. Liquids are usually limited to about three pints. Proteids are always restricted.

Heat in the lumbar region may stimulate the kidneys and allay pain. Hot bottle, warm flannels, hot plates, flat irons. Be careful about burning the patient. Hot air baths may be given.

Technic for hot air bath. Cradles to arch the bed; cover cradles with rubber blankets, then with woolen blankets; an alcohol lamp to supply heat and a section of pipe to go under the bed clothes. Ice cap to head. Hot lemonade before starting flame. Watch the pulse. The duration of the hot air bath should vary from twenty minutes to an hour.

The convalescence is apt to be long and slow.

CHRONIC NEPHRITIS

a. *Chronic glomerular type.* This type is characterized by inflammatory changes in the glomeruli and epithelium. It may follow an acute nephritis or set in insidiously.

The urine has a specific gravity of 1.020 to 1.025, is diminished in quantity, turbid, albumin + + with fatty casts and red blood cells. The face is pale and puffy, with general edema, and a pasty complexion. The pulse is bad and arteries palpable. It is seen often in young adults.

Prognosis. Poor.

Treatment. Same as in acute nephritis.

b. *Chronic interstitial nephritis.* A slow, creeping degeneration of kidney substance, usually associated with marked arterio-sclerosis. It is one of the natural sequences of growing old. The kidneys are small, with thick adherent capsule and much increase of fibrous elements. Urine, pale; the specific gravity is always low, 1.005 to 1.012; a trace of albumin may or may not be present; the sediment is scanty with few hyalin casts.

Treatment. Quiet life with least possible strain on heart, arteries and kidneys. No alcohol. Limited meat. Uremia is the end result of many cases of nephritis. It is marked by restlessness, mental wandering, often uriniferous odor to breath. These cases must be freely purged and sweated.

PYELITIS

An inflammation of the pelvis of the kidney induced by bacterial invasion. It is common in pregnancy, infancy, and with an infected bladder.

Symptoms. Pain on affected side, temperature, sweats, The urine may contain large amounts of pus, which may be intermittent at times. Pyelitis is especially common in

infants and young girls. The infection may come from soiled diapers, through the urethra, or from the blood stream.

In pregnancy it is due to lowered resistance of the kidney pelvis, usually from pressure.

The diagnosis usually depends on the urine examination.

Treatment. Water + + + fluids must be forced. Bowels must be kept free. Hexamethylenamin. This can be effective only in an acid medium. The diet must be nonstimulating.

ECLAMPSIA

Albuminuria of pregnancy. It is due to a disturbed metabolism produced by some foreign substance originating in the fetus or mother. If the mother is unable to produce a sufficient number of antibodies to neutralize her toxins, or if the production of foreign substances is disproportionately great, the equilibrium of the mother is disturbed and one of the forms of toxemia occurs. In the early months it is nausea and vomiting, morning sickness; later months, headache, dim vision, rise in blood pressure, and albumin in the urine which, unless attended to, will terminate in eclampsia or convulsions. The convulsions last from one to two minutes to half an hour.

If eclampsia is caused by some substance circulating in maternal blood, the origin of which is in the products of conception, then to cure we must remove the cause or the pregnancy should be terminated.

DIABETES MELLITUS

"A disorder of nutrition in which sugar accumulates in the blood and is excreted in the urine, the daily amount of which is increased."

Hereditary influences play an important role, and cases are on record of its occurrence in many members of the same family. Men are more frequently affected than women, the ratio being 3 to 2. It is a disease of adult life. It rarely occurs in childhood, but when it does occur the prognosis is bad. Hebrews seem especially prone to it. The combination of intense application to business, over-indulgence in food and drink, with a sedentary life, seem especially prone to induce the disease. Theoretically it may be produced—

1. By disease of islands of Langerhans in the pancreas.

2. By ingestion of a greater quantity of carbohydrates than can be stored at the time in the liver as glycogen. This causes temporary glycosuria.

3. By changes in liver function. The onset is gradual and either frequent micturition or great thirst first attracts attention. The disease is characterized by great thirst, passages of large quantities of sugar urine, huge appetite and progressive emaciation. Thirst is the most distressing symptom of the disease. Large quantities of water are needed to keep the sugar in solution. Despite a huge appetite the patient very quickly becomes emaciated.

Urine. The quantity varies from quarts to gallons. Specific gravity is high, 1.025 to 1.045. Pale, sweetish odor, acid, sugar ½ to 10 percent. Fehling's test is positive.

Diabetic coma comes on in a considerable portion of all cases. Weakness, fainting, gradually deepening to unconsciousness. The coma is due to acid intoxication.

Prognosis. Under 40 it is bad. Over 40, with care, it is more amenable to treatment.

Treatment. Hygiene, absence of worry, and a restricted diet. Carbohydrates are reduced to a minimum.

Death is usually ushered in with coma, gradually deepening to unconsciousness and the Chyne-Stokes breathing.

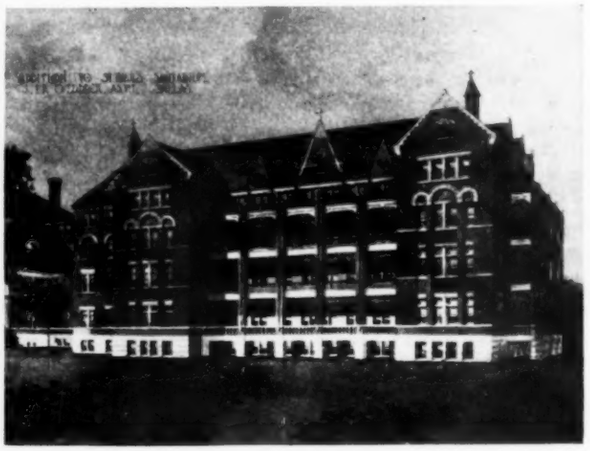
SISTERS OF CHARITY MAKE BIG IMPROVEMENT AT DALLAS

New Addition to St. Paul's Sanitarium Will Contain Ninety Private Rooms

A contract for the construction of an addition to St. Paul's Sanitarium at Dallas, Tex., to be devoted mainly to the care of private patients, has recently been awarded. The addition will cost $200,000, exclusive of equipment, which it is estimated will require an additional expenditure of $25,000. It will contain ninety private rooms, which will bring the capacity of the sanitarium up to 225 beds. Fourteen of the private rooms will have baths and toilets in connection. The following description of the building is given by the Dallas *News*:

"The new wing will be a five-story brick structure, 175 by 90 feet, with Carthage stone trimmings and slate roof. It will be fireproof throughout and will be equipped with three inclosed staircases and two inclosed elevators. The most modern plumbing, lighting and heating equipment will be installed.

"Besides the private rooms on each floor, there will be a waiting room, a diet kitchen, a sewing room, two service rooms and storage closets, etc. On the first floor will be located a nurses' instruction kitchen, a storage room for drugs, two pathological laboratories and a morgue.



New Addition to St. Paul's Sanitarium, Dallas, Tex.

"On the second floor will be located the interns' quarters, with private bath and toilets, and a large sitting room. An up-to-date pharmacy will be on this floor. The third and fourth floors will be taken up almost entirely with private rooms.

"The fifth floor will be used mainly for operating purposes. There will be four general operating rooms, with washrooms between, one operating clinic, with sterilizing and washroom in connection, and three specialists' operating rooms. There will also be located on this floor the instrument, sterilizing, splint, recovery, nurses' and supply rooms and warming closets, and also an x-ray room, with waiting and dark room adjoining. The doctors' quarters will also be on this floor. At the west end of this floor will be two small wards for children.

"A new kitchen will be built in the rear of the main building. In connection with the kitchen will be a bake shop and a cold storage house 12x48 feet."

St. Paul's Sanitarium is conducted by the Catholic order of the Sisters of St. Vincent de Paul, by which it was opened in 1898. The buildings now in use were erected at a cost of $280,000. The institution ministers to the sick and infirm of all classes, rich or poor, without regard to creed, and is said to have gained much popularity among the people of Texas.

The plans for the addition now in course of construction were drawn by Architect J. Ed. Overbeck, of Dallas.

PREVENTION OF TUBERCULOSIS

Conducted under the auspices of
THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS

Social Activities of One of New York's Tuberculosis Clinics

One of the hopeful indications of the increasing efficiency of the much-maligned dispensary is the broadening conception of work which some few of these institutions are observing. Not only is there a growing insistence on increased efficiency in medical standards, but the hitherto promiscuous social work is being standardized as well.

Even the tuberculosis clinics are adding social service machinery, as is evidenced by the experience of a number of such institutions in New York, Philadelphia, Boston and Chicago. Mrs. Herman M. Biggs, wife of the commissioner of health of New York State, in a recent address before the New York Association of Tuberculosis Clinics, describes some of the most interesting social activities of the Chelsea Clinic of the New York City Department of Health. The Chelsea Clinic is located on the west side of New York, near 20th street, in a district whose population has changed radically in the last ten years from a high-grade residential group to a laboring, tenement house and boarding house group. Speaking of the social work of the clinic in this neighborhood, Mrs. Biggs says:

"We have been holding for more than two years fortnightly conferences at the Chelsea Clinic, to which all social workers in the district are invited, to discuss the conditions and needs of the tuberculous families and to formulate plans to rehabilitate these families. At the conferences there are frequently twelve or fifteen in attendance, and they have been not only most helpful to all taking part in them, but are most useful in preventing any overlapping in the relief work.

"We have formed a Chelsea class in dietetics at which there are in attendance many mothers and several little mothers. A skilled teacher gives most interesting and practical talks on the values of foodstuffs and the preparation of simple, nourishing and inexpensive foods, emphasizing and contrasting the relative cheapness and the great food value of milk as compared with eggs and meat. She gives simple means which are helpful in demonstrating of what a nourishing and inexpensive meal should consist.

"We follow up these lessons by sending trained dietitians into the homes of tuberculous families under our observation. The teacher not only goes into the home and teaches cooking, but she goes with the members of the family to teach them how to purchase foods, kitchen utensils and everything needed in the home.

"To encourage thrift among the mothers, and to help them to procure for themselves much needed kitchen utensils, brushes, brooms, etc., we are giving a trading stamp book to each one, with enough green trading stamps to fill one-third of the book. These are given with the understanding that when they have collected enough to fill the book, they can be used to buy useful things for the kitchen. We feel that this will add materially to the interest which the mothers have in the work.

"The Chelsea Clinic is the only clinic in New York City, I believe, where milk is dispensed. We have been doing this for nearly two years, and last year 65,514 quarts of milk were dispensed. For economic reasons, it seemed best to me to give up the distribution of eggs and to increase the amount of milk dispensed. We feel that this has brought many patients to the clinic who otherwise would not have come and has stimulated their interest and regularity of their attendance.

"During the past year we have distributed 2,139 articles of clothing and bedding and 149 pairs of shoes. This includes a number of entire outfits provided for destitute patients sent to sanatoria or preventoria.

At the Chelsea Clinic. Corrective exercises for muscles of spine and legs.

"One of the most, if not the most, important factor in preventive and relief work is improvement in the housing conditions. What progress can one make in a three or four-room tenement with few windows, and these often nailed down, and with six to ten people existing in it, the usual boarder occupying the best bed and eating the eggs if there are any? But moving families into better quarters is very expensive for the society and means large funds, as rents must be paid regularly every month. In Chelsea, where we can move a family, one of the most difficult problems is to find a better and more sanitary place.

"About two years ago, physical training classes for the children were started at the suggestion of the People's University Extension. The children are being taught simple corrective exercises, how to breathe and stand properly. They become very much interested in this work and in many cases the development of the muscles of the chest, shoulders and arms has been astonishing. When the weather is propitious, the classes are held in the yard. To encourage the work of the children, bathing suits are given as prizes, these being chosen because a new public bath has been opened near the clinic on 28th street, and we feel that this will stimulate the children, not only to keep clean, but will help them grow physically stronger as they learn to swim. Similar classes have since been es-

tablished in connection with Bellevue, Harlem, Italian, Mott Haven and Stuyvesant Clinics.

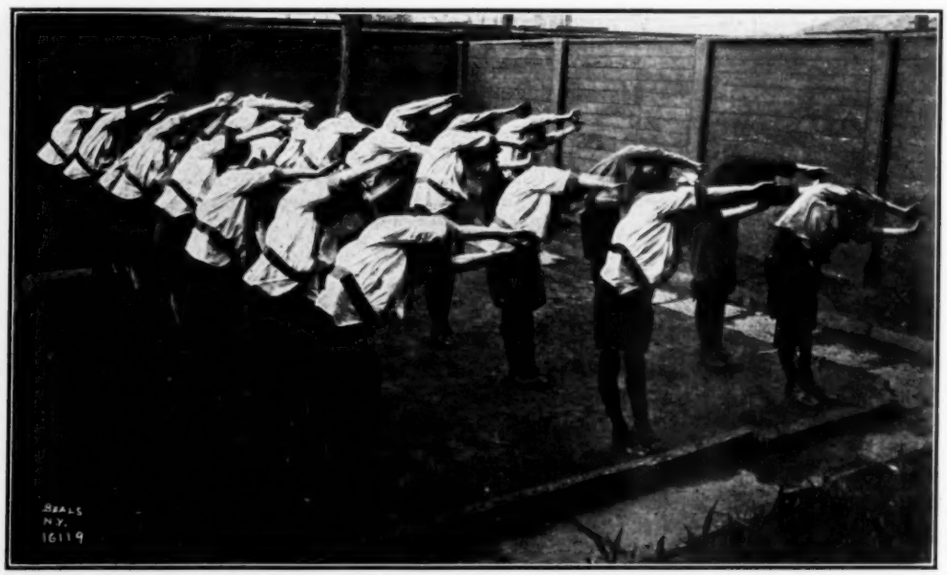
"Arrangements are made so that the children can purchase at the clinic the bloomers and middies used in the corrective exercise classes for 25 cents a suit. Those who cannot afford to bring all of the 25 cents at once are permitted to purchase on the instalment plan. They are pleased and happy with their suits and can hardly wait for the time to go home and show them to their mothers.

"We have a Health and Homemakers' Club, the object of which is to promote health, happiness and prosperity in the home through class work, which includes talks on home sanitation and domestic economy. Weekly demonstrations at the clinic are given by means of a large doll house. The boys are making the furniture and are taught simple carpentry, while the girls are taught domestic work, such as bed making, dusting, sweeping, etc. They have lessons in sewing, weaving rugs and dressing their dolls. We have a sewing machine and the girls are making their own dresses, the mothers being asked to come in and assist whenever it is possible.

"We have in the Chelsea district, I think, the first and perhaps the only Preventorium Nursery. While I believe that many persons who are best fitted to judge are coming to question whether nurseries are altogether desirable (since they remove the responsibility for the care of the children from the home), still I do feel that a nursery for the children of the tuberculous is a most important and necessary adjunct to the tuberculosis clinic. For, while the children must return to their infected homes at night, the fresh air and nourishing food which is supplied in abundance certainly increases their resistance.

"We have a roof garden where the children spend most of the day, and also a most successful kindergarten.

"The children are obliged to take long naps in the afternoon and are given a nourishing supper before going home. We are also giving a number of school children a midday dinner. Every child who attends the nursery is admitted through the clinic and in this way we have careful supervision over the entire family. We established this nursery because of the difficulty encountered in placing children of the tuberculous in other nurseries."



At the Chelsea Clinic. Corrective exercises for muscles of side and waist.

A Stock Lecture on Tuberculosis

The National Association for the Study and Prevention of Tuberculosis has prepared a stock illustrated lecture on tuberculosis. The lecture is illustrated with twenty-seven lantern slides carefully selected and finished in the most approved manner, and has been prepared in such simple language and in such form that anyone who can read English can deliver it. All that is needed is a man to operate the lantern and a man to read the lecture. Everything possible has been done to perfect the text of the lecture and to make it of the most practical value. It deals with the prevention of consumption, bringing in a discussion of the nature of the disease, the channels and methods of infection, and the means and precautions to be taken to cure and prevent it. Mechanically, the lecture is arranged to facilitate its use in every possible way, and under all sorts of circumstances.

Associations, boards of health, and others interested in tuberculosis work will find this lecture of great service in their educational campaign. It may be used very conveniently and with good effect in motion picture theaters, lodges, schools, churches, and elsewhere. It takes from 18 to 25 minutes to deliver the lecture effectively. Some organizations will find that they can use several sets of these slides, keeping them in circulation on regular schedules.

The National Association will furnish a copy of this lecture free to organizations or individuals making application for it. The lecture itself is of little value without the slides. It is possible, however, to select slides which could be used to illustrate the lecture from some other set which may be at hand.

For those who have no slides available, the National Association for the Study and Prevention of Tuberculosis has arranged with a manufacturer in New York to furnish sets of the slides, boxed, f. o. b. New York, for $7.00. Bills will be sent for these slides directly from the manufacturer, John F. Sweeney & Son, and all checks should be made payable to this firm. Both slides and lecture should be ordered from the National Association for the Study and Prevention of Tuberculosis, 105 East 22d street, New York City. The Association can also furnish other slides at 25 cents each. An illustrated descriptive list will be furnished on request.

Ground was broken the latter part of July for an addition to the St. Thomas Hospital, Nashville, Tenn. The new structure will be 150 by 50 feet, and five stories high. Two hundred thousand dollars is the estimated cost. With the completion of this building the oldest building of the present group will be converted into a home for nurses.

PHILANTHROPY AND THE PUBLIC HEALTH

THE NEW YORK ASSOCIATION FOR IMPROVING THE CONDITION OF THE POOR.
BAILEY B. BURRITT, General Director.
WILLIAM H. MATTHEWS, Director,
Department of Family Welfare.
DONALD B. ARMSTRONG, M. D., Director,
Department of Social Welfare.

DO THE PEOPLE WANT GOOD FOOD?

A Kitchen for the Public

BY HOLLAND HUDSON

Last February an old saloon building on Tenth avenue in New York City, in a longshoremen's and laborers' district, was thoroughly renovated and converted into a people's kitchen under the direction of the Committee on Public Kitchens, of the Department of Social Welfare, of the New York Association for Improving the Condition of the Poor. In this neighborhood there are few restaurants, and these, usually connected with some water-front groggery, dispense low-grade food, poorly cooked, unpalatable and indigestible, for the retail price of good food elsewhere. The cooking in many homes in this part of the city is not much better; and as most of it is done over wood fires, the work is exceedigly uncomfortable, particularly during the warm months. The physical result frequently is malnutrition; the psychological one, the decay of the manners and decency which is usual in the most frugal home where meals are a social as well as an alimentary function.

It was to counteract these dangerous currents in the eating habits of the neighborhood that the kitchen was opened.

The committee felt that the kitchen was but an experiment, aimed at the improvement of the conditions whereby the wives of this district sent their men to low-grade saloon-restaurants and fed their children and themselves upon substantial groceries only because they could not buy sufficient portions of nutritious, well-cooked food nearby at any price within their reach. It placed on sale menus composed of popular and nutritious foods, served in workingman's portions, at prices lower than the retail cost of the materials.

The longshoreman who goes to his work in the gray dawn need no longer stay his stomach until noon with a pony of red-dog whiskey and the foods offered at the free lunch counter unless his tastes run that way. For less outlay he can buy a cup of hot coffee and a substantial breakfast nearby at the People's Kitchen and eat at a table from clean dishes. His wife need not build a hot fire in the wood stove at noon to get the children their luncheon, for by sending one of them to the People's Kitchen with a suitable container, she can set a hot, cooked meal on the table for less than the materials would cost her at the grocer's. Should she go on a visit to her mother, the husband can get a substantial evening meal at the Kitchen without wasting his substance in having to "stand treat" for others.

In these transactions there is no element of "charity" or almsgiving. The food is purchased through the Association's regular channels in large quantities. In this way it is possible to obtain the best goods available at low cost. Enough is added to the cost of the materials to pay for the cooking and serving, so that the kitchen is actually self-supporting.

The serving of every meal is a business transaction in which the purchaser is able to buy at a bargain without divulging his creed or beliefs or otherwise satisfying the curiosity of amateur sociologists.

The committee which planned and directed the opening of the People's Kitchen consists of:

Mrs. James A. Burden, chairman; Miss Charlotte Barnes, Miss Beatrice Bend, Mrs. Ernesto Fabbri, Mrs. Marion Hollins, Mrs. Ralph Pulitzer, Miss Ruth Twombley, Mrs. William K. Vanderbilt, Jr., Mrs. James Watson Webb, Mrs. William Laimbeer.

Throughout the administration of the kitchen full advantage has been taken of the experience of the Social Welfare Department of the A. I. C. P. in dietetic research and in serving palatable and nutritious food at low cost to school children in New York City. Like every other activity of the Association, it has been held to a high sanitary standard. The methods of handling and preparing food have been studied and every possibility of contamination eliminated. Every employee of the kitchen is compelled to pass a rigid physical examination, and no person having any affection even remotely communicable has been employed in any capacity. The kitchen is efficiently screened from flies and other insects. On a recent visit of the Department of Health Food Inspectors it received a one hundred point score.

The first public kitchen in New York where people may buy cooked dishes for less than the retail price of the raw foods.

So far from resembling those soup kitchens and coffee stands which spring up overnight in industrial crises and then disappear, the People's Kitchen has established itself as a permanent institution, and investigations are now under way to determine the best site for the first branch kitchen.

PREVENTION OF BLINDNESS
MATERNITY

Conducted by CAROLYN CONANT VAN BLARCOM, R. N.,
Secretary National Committee for the Prevention of Blindness;
Chairman Committee on Prevention of Blindness and
Midwives National Organization for Public Health
Nursing.

What Women's Clubs and Nursing Organizations Can Do to Prevent Blindness

[Note. The following suggestions, which have been formulated for Women's Clubs and Nursing Organizations, and published in pamphlet form by the National Committee for the Prevention of Blindness, are reprinted in these pages with the hope that some of the suggestions offered may be adopted by readers of THE MODERN HOSPITAL.]

It is estimated that 50 percent of all blindness is preventable. This statement will be surprising to many—that one-half of the sightless people in this country need not have been blind had proper care been given to their eyes. But it has long been known by those endeavoring to prevent unnecessary blindness that more than a quarter of the pupils in the schools for the blind are sightless because their eyes were not properly treated during the first few days of life; that poor midwives are in part responsible for this tragedy; that children become totally or partially blind from neglected "sore" and "weak" eyes, and from neglect after attacks of such infectious diseases as measles, scarlet fever, etc.; that progressive nearsightedness among children may cause total or partial blindness if neglected; that household and industrial accidents cause the loss of many eyes; that drinking wood alcohol or inhaling its fumes in close places causes both blindness and death; that inadequate lighting and glaring surfaces are responsible for much visual disturbance, including eye-strain; and that eye-strain is a frequent cause of both mental and physical inefficiency.

Visiting nurse organizations and women's clubs, working independently or, better still, together, can perform

Fig. 1. This baby had sore eyes when it was taken in hand by the visiting nurse. Its sight was saved by the prompt medical and nursing care which were given it. This means one less blind person in the community.

valuable service in the elimination of these causes, thereby saving babies, children and adults from lifelong blindness.

"BABIES' SORE EYES" (*Ophthalmia Neonatorum*)

This disease, which causes so much blindness, is preventable and, if taken in time, is curable.

The prevention of blindness from babies' sore eyes is accomplished through the routine use of 1 percent solu-

Fig. 2. (By courtesy New York Department of Health.) A good midwife acts as nurse, friend and teacher—she is an important factor in reducing the mortality and morbidity of mothers and babies.

tion of silver nitrate, or some such prophylactic, in all infants' eyes immediately after birth, and by prompt and skilful treatment of babies' eyes when they become red, swollen and discharging, whether or not a prophylactic has been used.

1. Does the birth certificate used in your locality include the question, "What preventive did you use for ophthalmia neonatorum? If none, state the reason therefor"?

Fig. 3. This boy is obviously suffering from some visual defect. Continued neglect and the resultant eyestrain will probably mean serious trouble later.

2. Are prophylactic outfits distributed gratuitously by your health officer to doctors and midwives?
3. Are doctors, midwives and parents required to report to the health officer, within six hours, redness, swelling or discharge from the eyes of infants in their care who are under three weeks of age?
4. Is this reporting law printed on the birth certificate —thus acting as a constant reminder?
5. Has the Department of Health a nurse in its employ, or does it so cooperate with a nursing organization that it may send a nurse at once to visit each reported case and secure adequate medical or hospital treatment for uncared-for cases?
6. Are there such hospital facilities for the care of babies' sore eyes that the health officer may send an infant to a hospital without delay if the eyes are in a serious condition?

Take these points up with your health officer, interested oculists and obstetricians, and don't rest until they are all attended to. Make it your business to see that any baby suffering from sore eyes, of which you have knowledge, is given prompt and adequate medical attention.

Try to have at least one nurse in the community for eye work exclusively, and see that there are hospital facilities for treatment of severe cases of babies' sore eyes.

MIDWIVES

These women attend about half the births occurring in this country, and the majority of them are dirty, ignorant and generally unfit to assume the care of mothers and babies. Although the carelessness of many physicians is equally reprehensible, it is due in great measure to the ignorance and neglect on the part of midwives that many babies become blind from babies' sore eyes.

1. Are there midwives practising in your community?
2. Are they registered by an official body?
3. Is it required that they be adequately trained; pass an examination; obtain a license; and register before beginning to practise?
4. Has your community a midwife training school connected with a good hospital?
5. Do the practising midwives give clean, careful nursing care to mother and child, and instruction to the mother concerning hygiene of pregnancy and care of her child?
6. Has the State or City Health Department adopted rules regulating midwives' practise in detail and requiring them to summon a physician in all but normal cases?
7. Are there inspectors to enforce the rules and give helpful advice to the midwives?

Make it your business to find out about this, for the sake of the mothers and babies. Your Board of Health is the proper body to have control of midwives. The Board of Education should regulate their training and licensure.

EYESIGHT OF SCHOOL CHILDREN

Many normal children seem backward because they have sore eyes or defective vision. Failure to correct these defects will probably mean continued retardation for many of the children, and inability to reach their highest possible mental and physical development and economic efficiency. Continued neglect may result in partial or total blindness.

1. Are all class-rooms in your schools adequately lighted?
2. Are the blackboards and tops of the desks lusterless?
3. Are all of the desks adjustable?
4. Are the children's eyes carefully and regularly examined for nearsightedness and other visual defects, and for various kinds of "sore" eyes?
5. Is this done by an oculist?
6. Are there clinics where school children with "sore" or "weak" eyes may be treated?
7. Is there provision for furnishing eye-glasses to indigent children who need them?
8. Are common towels allowed in your schools? (They spread eye diseases.)
9. Are the children taught how to take care of their eyes?

Fig. 4. This chipper in a foundry was provided with goggles to protect his eyes from flying particles.

Improving the eyesight and general surroundings of school children will be of immediate benefit to them, and will increase their chances for enjoying health and prosperity later in life.

Talk to your Board of Education about this—it is important. The children can't do it themselves.

INDUSTRIAL ACCIDENTS

Many good workmen are seriously handicapped and even become public charges as a result of losing one or both eyes in an accident that might have been prevented. Men, women and children often suffer from severe eye-strain because they are not provided with adequate light while at work.

1. Are workmen in the factories and shops in your locality protected from eye accidents by goggles; guards on emery wheels; screens to catch flying chips; guards on water gauges; etc.?
2. Are the factories, workshops and workrooms adequately lighted?
3. Are workmen examined to see that they are not especially liable to accidents because of defective vision?

Take these points up with your Department of Labor, Industrial Safety Commission, or some similar body.

The eyes are bread-winners and must be carefully guarded.

WOOD ALCOHOL

Wood alcohol is a poison which may cause blindness or death if swallowed, or if its fumes are inhaled in an inadequately ventilated place.

1. Have you a law forbidding wood alcohol to be sold in any form without a poison label and warning?
2. Is the use of wood alcohol absolutely forbidden in beverages, medicines and toilet preparations?
3. Are your druggists, paint and varnish dealers, liquor dealers, grocers and barbers prosecuted for failure to comply with the above restrictions?
4. Is wood alcohol used in any of your local industries? If so, are employers required to protect their workmen from poisoning by providing adequate ventilation?

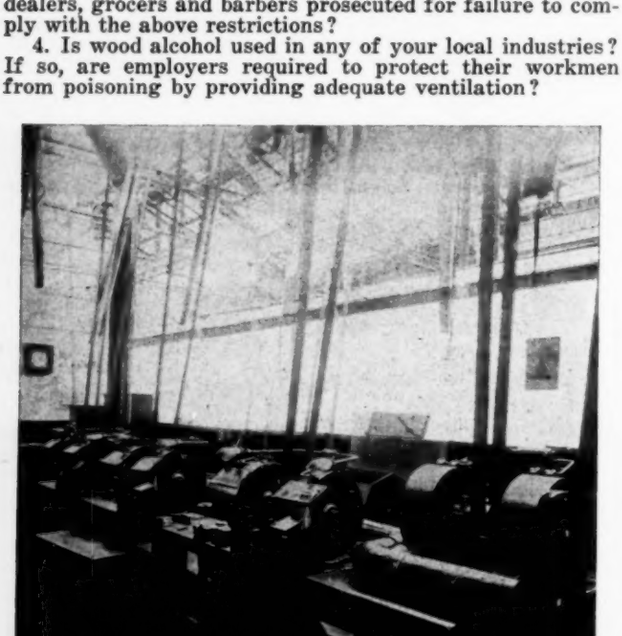


Fig. 5. Emery grinders, each of which is equipped with a protective hood of steel plate, and a plate glass shield, which prevents the dust from flying into the men's eyes. As an additional precaution, there are exhaust connections from the rear of each hood to a forced draft pipe.

Your Board of Pharmacy, Department of Labor, Health Department and Commissioner of Excise have jurisdiction in this matter. Find out what they are doing about it. In the meantime, urge your druggists to give up the sale of wood alcohol, and urge your friends to use denatured alcohol instead. It is safer and cheaper than wood alcohol.

The National Committee for the Prevention of Blindness wants your help and cooperation in spreading the knowledge that much blindness is needless. It has data and information, lantern slides, exhibits and pamphlets on the various causes of unnecessary blindness and methods of prevention, and it is glad to share these with workers in all parts of the country.

In order to accomplish the ends suggested in the foregoing program, it is necessary to have official action, supported by public opinion. Try to have at least one big

Fig. 6. Blind for life from drinking wood alcohol, which had been used as an adulterant.

popular meeting annually under the joint auspices of the local Medical Society, the Health Officer, Superintendent of Schools, Y. M. C. A., women's clubs, nursing organizations and relief agencies. Arrange for talks before school children, mothers' clubs, etc., and secure as much newspaper publicity as possible. Write to the National Committee for suggestions and assistance.

The educational work must be sustained—the effort unremitting.

ELLA L. BLAIR,
Chairman, Public Health Department, General Federation of Women's Clubs.

CAROLYN C. VAN BLARCOM,
Chairman, Committee on Prevention of Blindness and Midwives' National Organization for Public Health Nursing,
Secretary, National Committee for the Prevention of Blindness, 130 East 22nd street, New York City.

The Young Women's Christian Association is erecting a central club for nurses at 132 to 138 East Forty-fifth street, New York City. The structure will be fourteen stories high, and will contain, in addition to its general club features, sleeping accommodations for 254 nurses. The facade of the building will be of Italian design, with a base course of granite, above which the walls will be of red brick, trimmed with limestone and terra cotta to match. The entire building will be as fireproof as possible, with steel skeleton structure, brick walls and terra cotta partitions.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.,
Director of the Boston Dispensary.

Venereal Clinics in Buffalo

The Board of Health of Buffalo, N. Y., has undertaken to treat a number of cases of syphilis and gonorrhea in one of the hospitals under its control.

The expense of retaining a number of cases of syphilis and gonorrhea under hospital care has been one of the stimulating forces leading to the establishment of hospital clinics for the treatment of these diseases, as ambulatory cases. According to a report, the dispensary clinics for these diseases will be substantially enlarged in the near future, and will care not only for cases that have previously received treatment in the hospital, but also for other cases.

Increased provision of good treatment for syphilis and gonorrhea is becoming a recognized need in more communities every year. The growth of out-patient clinics to meet this need is a natural consequence.

A Crumb of Fact

There is a well-managed out-patient department of a hospital in a New England city of 150,000 population. All applicants for treatment are interviewed by the social service department, which thus acts as the admitting agent for the out-patient department. Last year, according to the annual report recently issued, there were 2,987 applicants for treatment. We do not find in this report a discussion of "dispensary abuse"; but we do discover that 251 of the applicants were referred to the offices of private doctors. This is 8⅓ percent. The reason for this reference was that it was felt that these patients could afford to pay a private doctor for the treatment which they needed.

This is a constructive method of handling the situation, which many communities face. It also has the advantage of contributing annually to our knowledge about the kind of people who apply for dispensary treatment and what needs to be done for or with them.

Pay Clinics for Venereal Diseases

The Brooklyn Hospital, under the superintendency of Dr. W. G. Nealley, has just opened a pay clinic for genito-urinary diseases. This is held daily (except Sundays and holidays) from 5 to 6:30 P. M., these hours being chosen so as to make the clinic more available to working people than it could be if earlier in the day. A charge of $1.00 per visit is made. This includes medicine as well as treatment.

At the pay genito-urinary clinic of the Boston Dispensary, which was started about a year and a half ago, 50 cents a visit is charged, but medicine is extra.

The need of more dispensary clinics—pay as well as free—for treating venereal diseases, was considerably discussed at one of the recent sessions of the American Medical Association in San Francisco, and also at the National Conference of Charities and Correction at Baltimore last May.

This new clinic of the Brooklyn Hospital will be watched with much interest by dispensary men throughout the country.

Efficient Dispensary Work for Mental Disease

The importance of out-patient work for those with mental defects or diseases, which has been brought out previously in this department, is well illustrated by the last report of the Boston State Hospital for the Insane in the section devoted to the out-patient department of the psychopathic branch of this institution.

Dr. E. E. Southard, the director, says: "The out-patient department has been managed as an integral part of the psychopathic hospital service to the great advantage of both. The clinic has increased numerically. As against 830 patients in the statistical year 1913, there have been 1,133 patients in the statistical year 1914. There have been nearly twice as many visits a month during the past year as in 1913. The increase has been in both sexes and in all classes. The volume of our work is indicated by the fact that no less than 338 special reports have been sent to social agencies and courts concerning cases.

"I need not stress the importance of this work. Sixty-three of the 1,133 new cases were admitted to the house service for observation or treatment, but in the majority of cases the medico-social questions could be answered without resort to internment; 322 cases belonged in the after-care division of mental hygiene.

"The extramural work of the hospital comes to a head in the out-patient department. It seems likely that this department will need progressively more funds as the years pass. It seems now as if there should be not merely a clinical historian, but a person to act as a manager of the clinic during its operation day by day, taking charge of the various inquiries from social agencies, courts and physicians.

"Follow-up statistics are available for ten and one-half months, serving as an efficiency study of our work. Since more than three-fourths of the patients due to arrive in the out-patient department come upon their own initiative (viz., 3,339 out of 4,046), it is clear that the institution is at least not a repelling force to the patients. About four-fifths of the out-patients have returned without reminders."

It will be noticed that 322 cases, or over 25 percent of the total number of new patients were the so-called "after-care" cases—that is, patients who had previously been in the Psychopathic or Insane Hospital and who needed supervision while continuing to live in their own homes. One-sixth of all the cases discharged from this Psychopathic Hospital during the year were given this after-care in the out-patient department of the institution.

The importance of the out-patient department to the hospital itself, as a feeder on the one hand and a follow-up service on the other, is well brought out. Still more important is its general service to the community as a place for diagnosis and care of incipient or developed mental disorders.

Principles of a Follow-up System for a Dispensary[1]

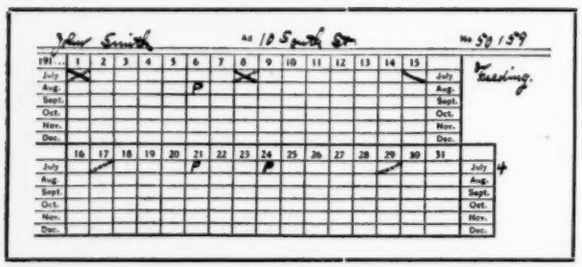
One of the important problems in dispensary work is what to do for the large number of patients who pay but a single visit when the nature of their ailment is such

[1]Extract from a forthcoming report of the committee on out-patient work of the American Hospital Association.

that repeated visits and further directions are necessary if any beneficial results are to be expected from the treatment prescribed. As an aid in the solution of the problem, a "follow-up system" has been devised and introduced in different dispensary departments, which has proven effective in largely diminishing this waste of effort and in securing fuller control over the course of treatment. While the method used in following patients must vary somewhat according to the special needs of each clinic, the general plan is as follows:

For each patient whom it is desired to follow up, a card is made out with the patient's name, address and number of his history. The card is ruled into small squares which are numbered from 1 to 31 across the top of the card, indicating the days of the month. At the left of the card the months of the year appear. By drawing a line in the proper square the doctor may indicate the date on which he desires the patient to return for treatment. This card is filed under the date indicated, either in a drawer or in an "Index Visible." When the patient returns, the card is again attached to his history so that the doctor may mark on it the date on which he wishes to see the patient again. If the patient fails to return, his card appears in the file at the close of the day. Usually after waiting for a patient from two days to a week, a postcard notice is sent to him, recalling his dispensary appointment and indicating a date on which the doctor will expect him. A postcard with a reply section attached may be used, on which, if it is impossible for him to return, the patient may reply and state how he has been since his last visit.

A form of follow-up date card is printed below.



Sample of follow-up card.

It has been found by experience in several dispensaries that about 50 percent of the patients respond to the first postcard; for the others more than one postcard, a personal letter, or a visit by a social worker may be necessary to secure results. The percentage of patients who never return varies from 10 percent to 30 percent. The amount of effort spent in securing the return of a patient should be determined by the doctor, according to the medical needs in each case.

The Dispensary Versus the Hookworm

The work of the Rockefeller Sanitary Commission in the Southern States ought to be better known to hospital administrators throughout the country. It is of especial interest to those concerned with dispensaries.

When the Commission began its work in the study of the hookworm in 1910, surveys were taken in eleven states to ascertain the prevalence of the disease and to disseminate information about it among physicians and the lay public.

In different localities the prevalence of hookworm was found to vary widely, from 10 percent to 90 percent of the population being affected in different communities. The survey was thus satisfactory in showing the need for action; but as Dr. John A. Ferrell says in a recent article:[1]

"The record of cures was small. In December, 1910, Mississippi tried, for indigent cases, the dispensary plan that had worked so successfully in Porto Rico for the whole of the infected population. It was found to be very satisfactory in that state, not only for the indigent cases but also for all who applied. It was soon tried elsewhere, and speedily became in all the states the agency around which the chief activities centered. It provided a means for effective teaching by actual demonstration.

"It is still employed in some of the states, which are completing the work with aid from the International Health Commission, in a few of the heavily infected counties that could not be reached before Dec. 31, 1914, which marked the close of the five-year period covered by the pledge of Mr. Rockefeller to the Rockefeller Sanitary Commission. A summary of the work through the dispensaries and through the increased activities of the physicians showed, by the close of 1914, that much had been accomplished in the South in treating the disease. The number of persons microscopically examined was 1,273,850. The number of persons treated and reported was 694,516. Of these, 254,118 were treated and voluntarily reported by the physicians, and 440,398 were treated in the dispensaries.

"The population and area to be reached was vast; the funds, and consequently the size of the working force, was limited; the time for completing the work was short, and the county dispensary campaigns were consequently limited to periods ranging from four to eight weeks—a time insufficient to develop satisfactorily the sanitary features of the campaign along with the curative measures.

"Obviously, the next development in methods called for a lengthening of the working period; limiting the area to be worked, intensifying the efforts and putting into effect both curative and sanitary measures. This modified plan of work was very satisfactorily developed during the closing months of the Rockefeller Sanitary Commission, in dispensary work. It was completed before the close of 1914 in twelve communities, each having an area averaging in size about 32 square miles and an average population exceeding a thousand persons (1,025, to be exact). The working period in each averaged about four months. The work was done by a field director, who in some cases was aided by a microscopist. Of the 12,305 persons in the twelve communities, 75 percent were examined; 26 percent were found infected and 94 percent of these were treated and probably cured. Twenty-nine percent of them were actually reexamined after a course of treatment and all found to be cured."

In summing up this campaign, Dr. Ferrell says:

"Many observers state, however, that the by-products have greatly exceeded in importance the tangible results with hookworm disease as published in the records of the state boards of health, and in the reports of the Rockefeller Sanitary Commission. To give an illustration of this: It was found that the available funds for public health work in the eleven southern states where aid was given amounted in 1910 to $216,195, and in 1914 to $392,364, an increase of 81 percent in less than five years. Of course, the commission does not assume the credit for this increase; it was wholly voluntary on the part of the states. It may be, however, that the states were stimulated by the spirit which pervaded the forces devoted to measures for the control of hookworm disease. At any rate, the health departments are much stronger now than they were five years ago.

"One incidental service of the Rockefeller Sanitary Commission to the public health agencies of the South and the nation has been the bringing into the field of public health work of nearly one hundred carefully selected young physicians. The large majority of them have acquired a love for the work and an appreciation of the broad possibilities it offers for service to man. More than a third of them have chosen it as a career, and have identified themselves with the state or national public health organizations."

Miss Ethel Butts, formerly superintendent of the Deaconess Hospital in Spokane, Wash., is in charge of the new Deaconess Hospital at Wenatchee, in the same state.

[1] Journal of the American Medical Association, June 5, 1915. Page 1889.

SOCIAL HYGIENE · VENEREAL DISEASES

Conducted by WILLIAM F. SNOW, M. D.,
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Prostitution and Mental Deficiency

Of the multitude of environmental and hereditary factors that make the production of a prostitute possible, one is mainly hereditary: that of mental deficiency or amentia. The findings of various investigators who have tried to ascertain what proportion of prostitutes are aments or mentally defective show that the correlation between amentia and prostitution is sufficiently striking to demand more careful mental examination of preadolescents and more elaborate provisions for the discovery, training, and protection of children whose minds are not normally developed.

I. It is necessary at the beginning to make clear the meaning of the term "amentia," which is in use in England, but is less frequently heard in the United States. The terms amentia and dementia may be thought of as covering the general field of mental anomalies. Dementia, as the derivation suggests, indicates loss of the normal ability of the mind to function, and is due to disease or injury of the central nervous system. The term amentia refers rather to a condition in which the central nervous system has failed to develop normally and in which a consequent developmental defect in intelligence results. According to Tredgold, about 80 percent of cases of amentia are probably due to hereditary causes, the remaining 20 percent being caused by intra-uterine and early infancy injuries.[1]

II. The fact that the groups of prostitutes tested have been inmates of institutions, such as reformatories, prisons, and detention homes, means that a preliminary process of elimination has been gone through. It is safe to assume that, of the prostitutes in a given city, the dullest and least efficient mentally are the ones to fall into the hands of the authorities. Obviously the keen-minded woman is much less likely to be apprehended than her less intelligent companions. Her wits insure her safety. Consequently there is a larger proportion of aments among prostitutes in custody than among those who remain at liberty to ply their trade. It is also clear that the more strictly the police enforce the laws against commercialized vice, the more likely the efficient, intelligent prostitute is to suffer arrest. Similarly, in a city in which police regulation is very lax, only the extremely obtuse would be haled into court.

A second comment is necessary. Norms for women of the same social standing, education, employment, and age as those to which the majority of prostitutes have belonged before entering a life of vice, have not been established. That is, tests have not been made of a thousand scrub women and an equal number of factory girls, domestics, and similar types. It seems impossible at the present time to say that prostitutes are more or less intelligent than the whole group of women who, in the main, are of the same education, age, and efficiency as the prostitutes were before entering careers of professional immorality.

On the other hand it has been found that girls of a much higher intelligence and education than the average domestic or factory girl have failed to scale up to normal according to the Binet-Simon tests, which are most commonly used. Dr. Jean Weidensall gave the Binet tests to a number of Chicago Normal School girls, with the result that a large number failed to scale up to normal. She also gave the same tests to maids who had worked satisfactorily for several years at Chicago University, and to a similar group at Vassar College, and they also failed to scale up to normal. There could be no question, as a matter of fact, regarding the normality of these individuals. Prof. Robert M. Yerkes, of Harvard University, believes the Binet test to be unsuited for use in measuring the intelligence of post-adolescents. Dr. Frederick W. Ellis, of the Neurological Institute of New York, says: "Between using the scale with a group in such a way as to show the efficiency of any individual in the group as compared with the other members, and using it so as to bring about the formal designation of an individual by such terms as idiot, imbecile or moron, there seems to be the widest difference in spirit and in the result obtained.

"As a matter of fact, only a small proportion of the whole number (of girls from the New York Probation and Protective Association) were feeble-minded, in an unequivocal use of the term, such as might be taken to imply necessary residence in some one of the existing institutions. None were congenital idiots; only one was a true imbecile; and only a few were morons in the true sense of possessing a structure that is primitive, but still capable of being trained for primitive mental and physical tasks.

"On the other hand, almost all of them were pronounced variations from the standard types of individual and social efficiency. These variations were so uniformly present, and so pronounced, as to make it impossible to abandon the use of the familiar terms feeble-minded, idiot, imbecile, and moron, without trying to find some substitute form of classification."

III. Among the earliest scientists to call attention to the marks of degeneracy among prostitutes was Lombroso. His term "moral idiocy" as applied to prostitutes, is practically synonymous with the more specific terms "sociopath" and "moral imbecile," which are in common use among psychologists today. Lombroso was convinced from his observations that moral idiocy was the fundamental basis of prostitution.

Pauline Tarnowsky in *Etudes Anthropometriques sur les Prostituees* (1887), gives figures derived from measurements of fifty prostitutes in St. Petersburg. She found that 44⅓ percent had skull deformities; 42½ percent face deformities; 42 percent ear deformities; and 54 percent teeth deformities. About four-fifths of her cases were the offspring of alcoholic parents and about one-fifth were the last survivors of very large families. Simultaneously with her examination of fifty prostitutes, Tarnowsky also examined fifty peasant women of about the same age and mental development, and found the prostitutes showed shorter anterior-posterior and transverse diameters of the skull and "concludes from her researches, that the prostitute, as a rule, is a degenerate, being the subject of an arrested development tainted with a morbid heredity and presenting the stigmata of physical and mental degeneracy in full consonance with her imperfect evolution."

Bonhoeffer in Breslau examined 190 prostitutes in pris-

[1] A. F. Tredgold, 1908. W. Wood & Co., Mental Deficiency, p. 8.

ons and found that of this number 102 presented stigmata of degeneracy; and 53 were feeble-minded. In 1882 C. Andronico examined 230 Italian prostitutes and found that 20 had flat noses, 35 had handle-shaped ears, 10 had vicious implantation of the teeth, and 35 had receding foreheads.

E. S. Talbot gives the following results from examining 30 prostitutes at the Bridewell, in Chicago: 16 abnormal zygomatic process; 14 asymmetry of face; 3 mongoloid heads; 16 epignathic; 11 prognathic; 16 brachycephalic skulls; 13 mesticephalic skulls; 3 oxycephalic skulls.

The research of which Tarnowsky's work may be taken as typical is superficial compared with the more penetrating and exhaustive methods of the modern student. But from the foregoing figures one thing may be assumed to be true: prostitutes that have been examined, most often in prisons and detention homes and other custodial places, present a large number of the stigmata of degeneracy. Cranial anomalies especially have been observed. In one case in which a comparative examination was made of prostitutes and peasant women of the same age and mental development, the prostitutes were found to possess more physical deformities and less skull capacity than the women with whom they were compared.

IV. An investigation, which was made under the auspices of the Virginia State Board of Charities and Correction, presents a very high percentage of aments among the prostitute residents of the Richmond red-light district. Of one hundred and twenty persons tested, the examiner found forty-two or 35 percent to be imbeciles, and fifty-eight or 48.3 percent to be morons. That is, one hundred or 83.3 percent were mentally defective and only twenty or 16.7 percent were declared normal.

In the beginning of the investigation the examiner visited houses of prostitution of various types with a police escort and administered the tests to the women in their resorts. Later the examinations were made in the office at police headquarters. "An examination usually lasted from fifteen to twenty minutes," reads the report. "These were prolonged to at least half an hour, that a friendly footing might be established." The Binet scale was used in making the tests.

Commenting upon these figures the report reads: "And what does this mean? That of one hundred and twenty women only twenty are able to judge between right and wrong; that one hundred women need institutional care that they may be happy, decent, and self-supporting instead of miserable centers of vice and corruption and disease."

Serious as the condition indicated by this investigation may be, the fact that the examination of each individual was made in less than half an hour lays open to question the thoroughness of the examination. Many recognized alienists require, as a minimum, from four to six hours for examination before being willing to pass upon the subject's mentality. The investigation apparently did not take into consideration the family history of the prostitutes and there is no indication of a thorough physical examination to check and substantiate the results of the mental tests.

V. The physician of the Chicago Morals Court makes the following statement regarding the six hundred and thirty-nine prostitutes whom she had examined: "Over four hundred were mentally deficient, two were found to be insane, and sixty-eight little more than imbeciles, having mental capacities of less than a seven-year-old child." That is, approximately 62 percent of the six hundred and thirty-nine prostitutes were aments.

Other tests of women from the Morals Court were made by Dr. W. J. Hickson, of the Psychopathic Laboratory. The following results are for one hundred and twenty-six cases. "This included normal cases, borderland mental defectives, sociopaths, morons, dementia præcox cases, alcoholics, and drug habitues. Out of this group twelve or 9.5 percent were normal; four or 3.1 percent were borderland defectives; eleven or 9 percent were sociopaths; eighty-six or 68.2 percent were morons; five or 4 percent were cases of dementia præcox; six or 4.7 percent were outspoken alcoholics; two or 1.6 percent were outspoken drug habitues. In other words, 89.37 percent of our cases are feeble-minded or borderland. If we leave out the borderland cases it shows that 85.83 percent of our cases, exclusive of the insane, alcoholics, and drug habitues, are distinctly feeble-minded."

VI. The State Training School for Girls at Geneva, Ill., has a population of about four hundred, of whom a great majority have been committed for sexual immorality. Dr. Olga Bridgman reports that of one hundred and eighteen consecutive cases that were examined upon entry to the institution one hundred and five or 89 percent "were graded as feeble-minded; that is, they showed a retardation of three years or more; seven or 6 percent were backward, being one or two years retarded, and six or 5 percent were graded as normal." The Binet tests as modified by Dr. Goddard were used, "for the purpose of making a rapid estimate of the mental status of the children."

Fourteen of the one hundred and eighteen had been committed as "dependents or uncontrollable." Of the one hundred and four remaining, all of whom had been sexually immoral, one hundred and one were graded as feeble-minded and three as normal. According to the Binet tests, then, 97 percent of the children sent to this institution because of sexual immorality are feeble-minded.

"1. Of the one hundred and four girls committed to Geneva as sexual delinquents, one hundred and one or 97 percent were feeble-minded according to the Binet tests. This would seem to prove mental deficiency to be an important causative factor in the causation of sexual immorality and to indicate the routine employment of a mental examination for all children of this class in order to determine how far they may be held responsible.

"2. Of the feeble-minded, comparatively few are aggressive sexual perverts, but most are helpless victims, who should have protection, and who, under close supervision, may lead useful, contented lives.

"3. By no means all delinquent girls are feeble-minded, but probably those not amenable to supervision and direction in their own homes are largely so."

VII. One of the most painstaking scientific studies of the relation between amentia and prostitution was made by the Massachusetts Commission for the Investigation of the White Slave Traffic under the direction of Dr. Walter E. Fernald. The report of the committee in discussing the work upon the Mentality of Prostitutes reads as follows:

"A study of the mental condition of each prostitute involved the following inquiries: a physical examination of the woman; a study of the family and personal history, including moral and social reactions and standards, industrial efficiency, etc., as revealed by probation, court or institution records, or as described by the woman herself; the school opportunities enjoyed and the school grade reached; an informal examination to show ability to read and write, to add, multiply, and divide simple numbers, and to make simple arithmetical computations; simple questions to test practical knowledge and general information; inquiries as to associates, recreations, interests, etc. The inquiry generally was intended to demonstrate the woman's power of attention, judgment, common sense,

and native mental capacity, without regard to her school advantages or education."

The group of women tested were in the custody of prisons, a detention home, and industrial schools. One hundred prostitutes were taken at random from each institution and were tested as described above. The result of these tests is given in the following table:

MENTALITY OF PROSTITUTES

	In Prisons.	In Detention House Awaiting Trial.	In Industrial School.	Totals.	Percent.
Feeble-minded...	54	46	54	154	51.3
Insane	4	...	7	11	3.7
Normal	42	54	39	135	45
Total	100	100	100	300	100

Quoting the words of the report:

"The above table shows that of the three hundred prostitutes, one hundred and fifty-four or 51 percent were feeble-minded. All doubtful cases were recorded as normal. The mental defect of these 154 women was so pronounced and evident as to warrant a legal commitment of each one as a feeble-minded person or as a defective delinquent.

"The women in this group as a class came from shiftless, immoral, and degenerate families; they were industrially inefficient, as shown by the low wages received and by their inability to retain a position, even in unskilled callings; they were very deficient in judgment and good sense; they lacked ordinary general knowledge and practical information, as well as ability to perform simple computations, or to read or write except in the most elementary way.

"The general moral insensibility, the boldness, egotism and vanity, the love of notoriety, the lack of shame or remorse, the absence of even a pretense of affection or sympathy for their own children or for their parents, the desire for immediate pleasure without regard for consequences, the lack of forethought or anxiety about the future—all cardinal symptoms of feeble-mindedness—were strikingly evident in every one of the one hundred and fifty-four women.

"The mental inferiority of many of these women was masked by the glibness of tongue, the bold and confident manner, and the attractive physical appearance which are so often found in such cases. The general appearance and bearing of many would not suggest feeble-mindedness to an inexperienced observer."

As measured by the Binet scale the mental ages of the 154 women were as follows:

None had the mentality of a 12-year-old child.
10 had the mentality of an 11-year-old child.
67 had the mentality of a 10-year-old child.
50 had the mentality of a 9-year-old child.
19 had the mentality of an 8-year-old child.
8 had the mentality of a 7-year-old child.

In describing the prostitutes classified as normal the report reads: "The one hundred and thirty-five women designated as normal, were, as a class, of distinctly inferior intelligence. Some of the women seen at the Detention House were so under the influence of drugs or alcohol as to make it impossible to test their mentality. These drunken alcoholic and drug-stupefied women were all recorded as normal. * * * Not more than six of the entire number seemed to have really good minds."[2]

Few comments upon this work are necessary. It is thorough, accurate, and sound. The results are for three hundred women taken from three institutions, and this is undoubtedly the largest group of prostitutes that have been carefully studied in regard to mental condition. Dr. Fernald, in a letter to the writer, commenting upon this study, says: "I believe that the institution and court cases do represent to a certain degree the dregs of the prostitute class. In other words, there is a certain grade of the so-called high class prostitutes who are not mentally defective. You will note that we did not call many persons feeble-minded who would be so designated if the Binet scale were used arbitrarily. We have not sufficient data as to the rating, by the Binet scale, of the class of women of the same social scale as the immoral women tested to enable us to make definite statements."

[2]Report of Massachusetts Vice Commission. 1914, Legislative document.

VIII. In an article entitled Mental and Physical Factors in Prostitution, published in the *Women's Medical Journal*, July, 1914, Edith L. Spaulding, M. D., resident physician of the Massachusetts Reformatory for Women at South Framingham, Mass., gives a most interesting summary of the mentality of prostitutes in that institution.

The study includes mental and physical examination of two hundred and forty-three inmates of the Reformatory. In order to have proper background, inquiry was made into the educational advantages in each case. In doubtful cases or in cases where there were indications of amentia the Binet-Simon tests were used. The result of this work is shown in the following table:

		Percent.	
Mentality good	55 cases	22.6	34.5
Mentality fair	29 cases	11.9	
Mentality dull	40 cases	16.5	16.5
Mentality subnormal	71 cases	29.2	49.0
Mentality moron	47 cases	19.8	
Mentality imbecile	1 case		

As this table indicates, 49 percent of the prostitutes were subnormal or aments. This compares well with the 51 percent found by the Massachusetts Commission, mentioned in the preceding section.

Dr. Spaulding concludes that of the group under her observation all but 15 percent were either aments or were suffering from nervous disorders. In other words, 85 percent had been weakened in capacity to resist the temptations of everyday life. However, this 85 percent must not be confused with the 49 percent, the proportion of aments, which is the particular point of interest in this study.

IX. The Bureau of Social Hygiene of Bedford Hills, New York, has made careful and exhaustive studies of the physical and mental characteristics of immoral women, especially prostitutes, committed to the New York State Reformatory for Women.

It has been generally assumed that amentia is not remediable. The ament may be trained but cannot be educated in the scientific sense. Accordingly in an institution where many aments are under supervision there will be many who cannot improve to the point of being able to direct their conduct successfully in ordinary community life. The Bureau of Social Hygiene observed that many of the women committed to the Reformatory were actually reformed, and on the other hand that many were undoubtedly feeble-minded. Accordingly Dr. Weidensall administered the Binet test, as revised by Dr. Goddard in 1908, to two hundred women as they came in sequence from the courts. It was found that only 0.5 percent could pass the twelve-year-old test.

Dr. Weidensall says:

"Inasmuch as a fair percent of this number were bound to prove reformable if the practical experience of the institution was to be relied upon, we must needs conclude either that the feeble-minded were reformable or that the tests, at least as applied to the criminal woman, were inadequate."

In George J. Kneeland's *Commercialized Prostitution in New York*, Dr. Katharine Bement Davis gives the results of the Binet test as applied to one hundred and sixteen of the six hundred and forty-seven inmates of the New York State Reformatory for women: Of these women forty-four or 37.9 percent were unhesitatingly

pronounced mentally defective; seventy-two were doubtful. The total number of women under observation was six hundred and forty-seven, of whom one hundred and ninety-three or 29.8 percent were "decidedly mentally defective."

In a recent publication of the Bureau of Social Hygiene the first hundred cases studied by the Bureau were summarized under the following heads: age, offense, physical characteristics, mental characteristics, family, recommendation as to disposition of case, and disposition of case.

The hopeful aspect of the situation is the indication that training and medical attention would undoubtedly improve a large portion of these cases.

The question arises, "Are the physical and mental anomalies, characteristic of a large number of these cases, due to a life of prostitution, or is the immorality of the women due to physical and mental defects and diseases?" Probably the truth lies between the two alternatives, the causes and effects being interactive.

X. Tabulated summary of the above studies of relation between prostitution and amentia:

	Number Prostitutes Examined.	Percent Aments.
State Board of Charities and Correction, Richmond, Va.	120	83.3
Chicago Morals Court	639	62.0
Chicago Morals Court	126	85.8
Illinois Training School for Girls	104	97.0
Massachusetts Vice Commission	300	51.0
Massachusetts State Woman's Reformatory	243	49.0
New York State Reformatory for Women	193	29.8
Bureau of Social Hygiene	100	29.0
Total	1,825	

In all, 1,825 cases have been tested, the results ranging from 97 percent to 29 percent of aments among the persons tested. The surprisingly wide variation in the figures given above indicates a great difference in the methods used and in the interpretation of results. Undoubtedly the type of prostitute found in New York and examined at Bedford is about the same as that found in Chicago and examined by the Chicago Morals Court. The difference lies in the examiner and his or her method and interpretation. Such results leave the student in an unsatisfactory situation. The question still remains, "What proportion of prostitutes are mentally defective?" It would be possible to strike an average from the percentages given above for the 1,825 cases, but such an average would be obviously useless, for it is manifest that 29 percent and 97 percent cannot both be correct. The point seems to be that a moron is one type of person to this examiner and another type of person to that examiner. Those figures may be taken as most reliable which are secured by the most expert diagnostician, having the subject longest under observation, and penetrating deepest into the family and personal history and the physical condition of the subject.

In conclusion, the points of importance which emerge are as follows: 1. There is a great need for the establishment of norms for women of the same general industrial class as that to which prostitutes have belonged before becoming prostitutes, in order that comparisons may be made. 2. There is a need to study carefully a large number of prostitutes who have not undergone the initial process of elimination in the courts. 3. The whole correlation between prostitution and amentia is still undetermined. The most accurate and conservative studies thus far made indicate that about one-half of the prostitutes who come into the custody of city and state institutions are mentally defective. W. C.

HINTS FOR HOSPITAL SUPERINTENDENTS.

In some hospitals books of efficiency are kept for all employees. One such book is kept for the interns, one for the nurses, one for the common help. Good deeds as well as delinquencies are kept in the account. A scheme of this sort makes it possible to lay the whole story of an employee's service on the table in the event that something of importance to him or her comes up for consideration. And such an evaluation would be independent of changing superintendents or other high officials.

Superintendents should discourage their heads of departments from stopping them in the halls or as they pass through the building, to give them important information, or information that should go into the records. Heads of departments should be schooled to bring their reports to the superintendent's office at certain fixed hours, and the superintendent should never be too busy to give plenty of time to these people for consideration of their department business. Nothing so discourages officers in the hospital as a listless, careless and inconsiderate attitude on the part of the head of the house, and they soon get into the same habit themselves.

How many hospital superintendents, off hand, can tell just how much their hospital must earn daily to be on the right side of the ledger? And yet every hospital has a maximum earning capacity, and a pretty definite expense figure. It should be possible for every superintendent to tell, after breakfast in the morning, when yesterday's report is laid before him, just how he came out for the past twenty-four hours. It may be that you expect a deficit, but, at any rate, you should know just what the deficit has been. In some hospitals it takes an annual report to tell the superintendent how his finances are. That kind of a report isn't worth very much because it doesn't help any in administration from day to day.

Now is a good time of the year to look into our asepsis a little bit. Perhaps infections are not more likely to occur in the summer than in the winter time, but every season is a good season to think about extraordinary precautions against preventable infections. Better inquire whether there have been any infections in the surgical wards and in the maternity wards recently, and while you are about it you might try to locate any of these that have occurred. Most hospital infections are preventable, and more than half the time a careful inquiry will discover the source of whatever infections there may have been lately. Infections cost money and delay, and jeopardize the recovery of patients, and give the hospital a bad name—besides, it is wicked to have them.

Not one single well person should be housed in the hospital building. The average private room in a fireproof hospital building costs about $3,000 to build and rents for an average of $1,200 per year. You can rent accommodations outside, dwelling houses or flats, to house a dozen employees, for one-half the rental price of one private room. I know one hospital in which eleven persons were housed, each one in a private room. The hospital had to turn away private room patients, and had a full-grown annual deficit. A flat was rented for these eleven people, for $35.00 per month. Within thirty days those eleven rooms were bringing in $275.00 per week, or at the rate of $14,300 per year. Besides, well people, living in the hospital, prowl about when they are not on duty and get into mischief.

NEW INSTRUMENTS AND APPLIANCES

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

A Simple Anesthesia Apparatus

Dr. Benjamin Morgan, of Chicago, has designed an anesthesia apparatus which seems to have many good qualities, minus some of the often too complicated attachments which are found in ether apparatus that is designed for ether vapor inhalation. Some of the features claimed for this device are:

Ether vapor may be produced in proper proportions, with fresh air for each respiration.

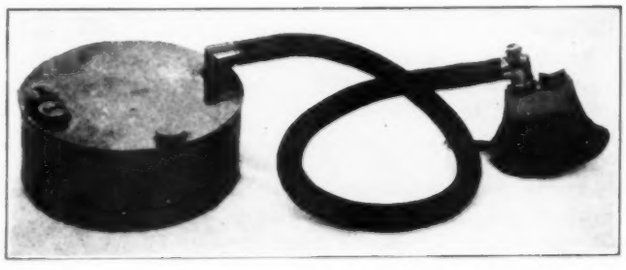
No unvaporized ether enters the patient's respiratory tract.

The vaporizing temperature may be attained before the ether enters the respiratory tract.

The entire quantity of ether vapor may be utilized by the patient and is not distributed in the room.

Resistance to inspiration and expiration are at a minimum.

The apparatus illustrated consists of a vaporizing chamber having approximately 36 square inches of evaporating space and 300 cc. capacity. At the top of the chamber or container are placed two valves. One of these is an intake for fresh air, the stream of air passing against the surface of the ether; the other valve is the outlet for vaporized



Morgan Ether Vapor Apparatus.

ether arising from a point midway of the surface of the chamber. In addition a suitable inlet is arranged for replenishing the ether. Attached to one side of the container is the usual flexible tube provided with a face-piece or inhaler.

Certain changes have been made in the inhaler so as to adapt it better for this particular type of anesthesia apparatus. The valve works in but one way, opening outward, thus preventing the patient from rebreathing; this feature is declared by Dr. Morgan to be of very considerable importance. A valve is also attached to the face-piece so that the amount of fresh air entering may be regulated.

Pure ether (or chloroform) is poured into the vaporization chamber to a depth of about 1 centimeter. With the ventilator in the inhaler wide open, the mask is placed snugly over the patient's face. (No anointing is necessary, as no unvaporized ether will touch the skin). As the patient becomes accustomed to breathing the vapor, the ventilator is gradually closed, permitting the gradual entrance of an increasing amount of ether vapor. When complete relaxation is attained the ventilator may be opened a little, and a uniform degree of anesthesia maintained over long periods without further regulation of the apparatus other than an occasional adjustment of the ventilator as may seem to be indicated by the patient's degree of anesthesia.

With a few slight modifications the apparatus can be adapted for nose and throat work in a way that will be

Showing application of Morgan Ether Vapor Apparatus.

greatly appreciated by the nose and throat surgeon. These operators realize the difficulty of obtaining satisfactory anesthesia, and to them the ordinary methods are a bugaboo. This apparatus is modified for the purpose and, among other things, substitutes a bent tube for the mask inhaler, so that a perfectly steady anesthesia of any required depth can be maintained for any length of time with no obstruction whatever to the field of work, and no retching or choking to interfere with the proceedings.

Infant Specimen Urinal

BY DR. C. R. SPICER,
Children's Memorial Hospital, Chicago.

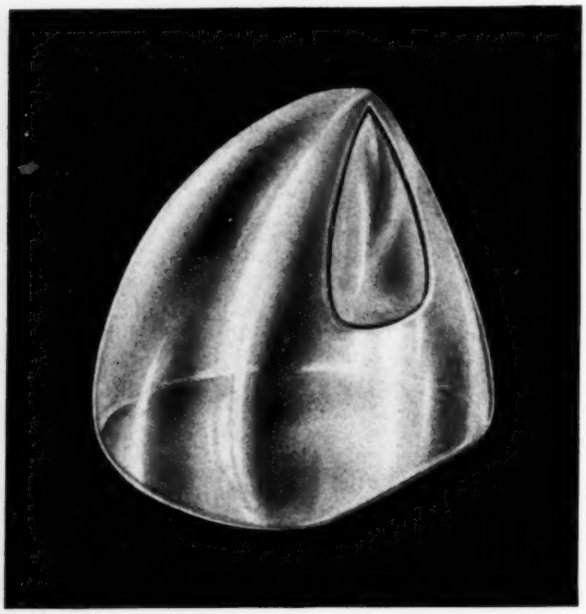
There has been a long felt want for a simple device for procuring specimens of urine from infants for mechanical and microscopic examinations, with the least amount of discomfort to the little patients and inconvenience to the attendants.

The devices which have been in use up to now are more or less unsatisfactory because they are troublesome to apply and the specimen cannot always be secured uncontaminated by feces. Therefore, we believe that the new specimen urinal devised by Dr. Spicer will be welcomed by the profession, especially in hospital practice.

The device is made of moulded glass of the proper thickness and will withstand any ordinary stress. It has two plane surfaces; one of these rests against the patient when applied and on the other it stands when not in use. An opening of proper size and shape is located toward the upper end of the plane that rests against the body so as to admit the penis or to cover the vulva, admit the urine and at the same time exclude the feces. The other side

of the device is convex and when in use is covered and held in place by the diaper only, nothing else being required for this purpose.

The little patient can be allowed entire freedom of movement, as, owing to the shape of the urinal and the location of the opening, it does not matter whether the child lies on its back, its side, on its face, or in a sitting or standing position; if urine is discharged it will be collected by this device. When the diaper is removed the urinal always remains right side up.



Spicer Infant Urinal.

At the Children's Memorial Hospital in Chicago, where the urinal has been in use for some months, it has fulfilled all the requirements that may be expected of such an apparatus.

Fulgurating Electrode for the Larynx.

Dr. Sidney Yankauer, of New York, has produced the electrode here illustrated for the reason that heretofore there has not been available a satisfactory electrode for this purpose.

Fulguration of papillomas is now an established procedure, and very satisfactory results have followed the use of this method in numerous cases. The principle is quite well known. Briefly, it consists of applying a high-frequency current, of suitable quality and strength, to the growth for a few seconds. The growth is then allowed to slough off.

The success of the fulguration method depends largely upon delivering the current, through a small conductor, direct to the growth to be removed. For instance, in laryngeal work, if the conductor or wire carrying the current gets in contact with the tissues, a short circuit is established and the spark is extinguished. To overcome these difficulties Dr. Yankauer has made his electrode with several novel features. The Yankauer electrode consists of a hard rubber tube bent to form a handle, of appropriate shape and dimensions, to be used conveniently with the direct laryngoscope, or with the suspension laryngoscope of Killian or Lynch. The interior of the tube, from the tip to a point on the handle near the bend, is lined with a metal tube to act as a conductor. The distal end is closed, but near the tip of the instrument a small opening, about 1 mm. in diameter, has been drilled through the hard rubber insulation and through the wall of the metal lining. At a point on the handle near the bend there is a threaded hole and at its bottom a piece of metal in electrical connection with the metal lining. Into this hole a hard rubber screw is fitted, which carries the conducting cord. The electrical conduction extends from the connection near the bend to the bottom of the small hole near the tip; the lumen extend from the end of the handle to the small hole near the tip. To the end of the handle a rubber tube is attached, through which compressed air at a pressure of about fifteen pounds is delivered.

Yankauer Laryngeal Fulguration Electrode.

To use the electrode, it is first introduced into the trachea and a small amount of air at a low pressure is blown into the trachea so as to blow out any ether vapor which may be present. The tip is then brought out into the larynx, the full air-pressure turned on first and then the spark. The rubber insulation prevents the tissues from coming in contact with the conductor. The air-current blows away any secretion which may cover the growths and at the same time separates the individual tufts of the papilloma, so that the spark can reach the base of the growths. It dilates the ventricle of the larynx so that its interior becomes accessible. By rotating the instrument any part of the larynx can be treated.

Kimpton-Brown Blood Transfusion Tube

Many types of blood transfusion instruments have been designed during recent years, but as this method is becoming more popular and being resorted to more frequently, new devices make their appearance from time to time.

The fact must be conceded that blood transfusion instruments are a necessity in every well equipped hospital. The fact that the Kimpton-Brown tube is very simple in construction should make it interesting to the surgeon and hospital superintendent.

As will be seen in the illustration, the transfusion tube is made in the shape of a cylinder. When the tube is lying on its side, the lower end of the cylinder is closed except for a cannula attached to one side of this end, and so placed that when in this position the cannula will lead from the upper side of the cylinder. This bends at right angles to the axis of the cylinder and side tube, and downwards. The last bend of the cannula is about 2½ inches long, tapering gradually to a beveled and burnished point about 2 mm. in diameter. The taper is such that the point will readily slip into a vein with proper manipulation. The opposite end of the cylinder is closed by means of an ordinary cork stopper. Just below the stopper a side arm leaves the cylinder. The tubes are made in two sizes, 100 c. c. and 250 c. c. Both sizes are carefully graduated, so that one can instantly see the amount of blood in the cylinder.

A few words concerning the handling of transfusion

tubes of this kind may not be amiss. Before use, the tubes should be carefully cleaned. This may be done by means of a swab of gauze, and some soap and warm water. Thoroughly cleanse the tube; then run some hot water through it, rinse out with alcohol, and later a few drops of ether.

They can be sterilized safely by wrapping in sheet wadding, winding in a towel, and sterilizing in the autoclave,

Kimpton-Brown Transfusion Tube.

in a manner similar to that of dressings. Tubes should be coated before use with paraffin, or some similar material. The tubes are easily coated, provided they are first heated equally, then the heated paraffin poured in, and the tube rotated, the excess mixture being allowed to run out through the cannula. The cork stopper should be coated as well, the paraffin aiding to keep the tube air-tight.

NEW YORK BROADENS HEALTH WORK

Boys of the District to Form League—Storekeepers' Conferences—Police Cooperation—Advisory League of Physicians

The New York City Health Department has conceived a scheme by which a number of civil agencies are to be enlisted in local health work. Some months ago a district in the densely populated part of the city was set apart as District No. 1, in which experimental work was to be done, the intention being to take up other districts as the work became standardized.

This district is now to take up local health problems under the following schedule:

BOYS' HEALTH LEAGUE

In order to fully develop in the younger generation a sense of responsibility for local health conditions, a "Boys' Health League" has been formed upon a military basis, with a captain and three lieutenants in charge of a square block, these, in turn, placing one boy in charge of a house, the whole district thus being effectively covered. This League has its own elected officers, and is supervised by one of the school teachers, who is the executive director, and by the Medical School Inspector, who acts as the medical director. This organization is being used to take a periodical census of the district, to distribute the monthly bulletin and other literature and will cooperate in every way with all city departments that can be utilized for the improvement of local health conditions, each department, in turn, delivering to the League short talks on the subject of cooperation with their respective departments. These boys all belong to the 7th and 8th grades of Public School No. 62, so that the benefits of graduating yearly a class of "Health League" boys is very manifest. The formation of an alumni of "Boys' Health League" is the next logical step.

CONFERENCES WITH STOREKEEPERS

A new method of dealing with those who handle and sell food has been introduced. Conferences with various groups of storekeepers are being held for the purpose of instructing them in regulations relating to their business. A Food Inspector gives them a short talk in their own language and answers the questions which they are encouraged to ask. The success of these conferences can best be judged by an attendance of sixty out of a possible seventy-five ice cream and candy storekeepers, and forty-five out of a possible sixty butchers. Hand in hand with this there has been a reduction in the number of violations found and summonses issued.

POLICE COOPERATION

A plan of police cooperation is being developed, by means of which patrolmen on duty will do actual Health Department work. A systematic course of instruction by means of short talks to outgoing platoons has been inaugurated, so that the uniformed force will be familiar with any work given them. Assignments to the patrolmen will consist in the enforcement of quarantine, in placarding, seeing to it that funerals in contagious diseases are private, and in cooperating with sanitary and food inspectors regarding violations of the Sanitary Code. When fully developed, this phase of "Police Health Work" will be a very important adjunct of Health Department administration.

PUBLIC HEALTH EDUCATION

In order still further to promote health education of the people of the district, lectures are arranged for public schools and recreation centers, articles are prepared for the local school periodicals, as well as for the Jewish newspapers circulating in the district; a bulletin board, maintained in front of headquarters, carries announcements and health epigrams; a health exhibit is shown on the walls of the rooms at the Health Centers' headquarters; health leaflets of various kinds are distributed, and altogether all effective methods of health education are utilized. A local monthly periodical, called the "East Side Chronicle," is being published for this district. It contains timely health articles and local news. A copy of this paper is distributed free of charge to every family in the district.

ADVISORY LEAGUE

An Advisory League of physicians, social workers, etc., has been formed and periodical meetings are held for the purpose of discussing plans for the improvement of health conditions of the district. One of the prominent social workers has voluntarily undertaken the handling of all of the relief work occurring in the Health Department work of this district.

An odd bequest is made in the will of the late William Bradford Weston, of Milton, Mass., who leaves two trust funds of $6,000 each, which are to be set aside and permitted to accumulate for 100 years, when they will be used to erect hospitals in the towns of Milton and Duxbury. The hospital in Milton is to be a memorial to Mr. Milton's wife, while the institution to be established in Duxbury will be known as the "King Cæsar Hospital," in memory of his great-grandfather, Ezra Weston, who was commonly known as "King Cæsar."

The Portland and Vindicator mining companies, of Victor, Colo., are cooperating with their 1,500 employees in a project to erect and operate a hospital. The plan is designed to supplement the workmen's compensation act, which the mine owners believe to be weak in certain particulars. The Portland and Vindicator plan will cover accidents not occurring during actual employment, and provide benefits for the first three weeks of accidents, something the new law overlooks. The companies will put up dollar for dollar with the men, who will give one percent of their monthly wages.

THE HOSPITAL KITCHEN

Any questions regarding equipment or other matters connected with the kitchen and dependent departments of food storage and service will be answered in this department. Address communications to The Modern Hospital, Kitchen Department, Metropolitan Building, St. Louis.

Mechanical Potato and Vegetable Peeling

One of the preventable items of waste in the kitchen is the peeling of potatoes and other vegetables. Various reliable tests in large establishments show conclusively that mechanical peeling of potatoes will effect a saving of from 15 to 25 percent of the potatoes, besides doing away with a considerable amount of labor. The rapidity of action is another feature, a batch of potatoes being run through in less than a minute. Obviously the eyes and abrasions in the potatoes cannot be taken out except by hand, without a large amount of waste, but as only large eyes need be considered the short space of time necessary to do this is negligible.

There are several peeling machines on the market. The principle of all the best is a disc bottom revolving rapidly and thus by centrifugal force throwing the potatoes against itself and the circular stationary sides of the apparatus. This disc and the sides of the cylinder are coated with an abrasive substance such as chipped flint or carborundum, and the potatoes are thrown against this and the skin is rubbed off in a short time.

Some machines have the abrasive substance on the bottom disc only, and naturally cannot operate as rapidly or evenly as those having both sides and bottom operating on the vegetable.

The machines are made for hand power or for belt and motor. Hand power is not to be recommended, owing to the difficulty of maintaining a high and even speed. As the time of operation is short the amount of electricity used is negligible for a power machine.

In choosing a peeler the main things to see to are that the motor is in a position where it will not get wet and short circuit; that the abrasive material has the highest cutting and lasting qualities and is attached to the disc and cylinder in a way to secure the maximum of adhesion, and that the moving parts and abrasive parts are easily removable for renewal when worn out.

Whenever more than two bushels of potatoes are consumed daily it will pay to instal a peeler. An average 20 percent saving in quantity can be looked for over the hand peeling as practiced by the general run of kitchen help.

The handling of the peelings when removed by hand means the accumulation and handling of a considerable amount of garbage. With a mechanical peeler the peelings, being of the consistency of sawdust, are carried away into the sewer by the stream of water constantly running through the machine. Small potatoes which are ordinarily thrown away are peeled easily in the mechanical peeler and another cause of waste stopped.

It will be found that the initial cost of a vegetable peeler will be saved within a reasonable time in the amount of vegetables saved alone, besides minimizing one of the protracted operations of the morning in the kitchen, and doing away with a large amount of garbage.

Kitchen Ventilation

BY P. B. SCHWEIKERT

The atmospheric conditions under which kitchen help are forced to labor are in too many instances outrageous, the more so that there is absolutely no necessity for such conditions to exist when the knowledge of how to prevent them is easily obtainable.

The principles which apply to the ventilation of a building have to be modified to a great extent in order to get results in the kitchen. The cardinal principles which must be followed are in reality simple but are very often entirely forgotten by those designing the kitchens of hospitals as well as other buildings.

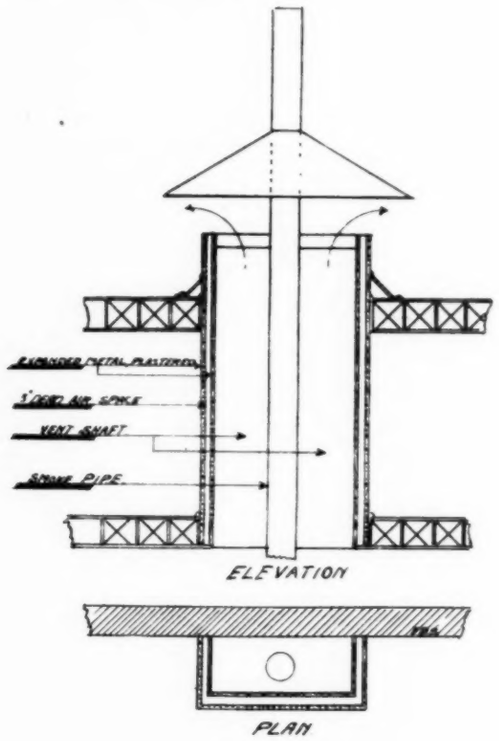


Fig. 1.

It is not practical nor safe, for example, to conduct the vent from the canopy over the ranges into the same flue as the smoke from the ranges, nor can one expect the vapors from the ranges thus to be carried away successfully. It is unsafe inasmuch as the heat from the smoke flue may ignite accumulated grease in the vent pipe.

Open windows will not carry off the vapors from the cooking except to a very small extent. Blowing air into the kitchen will not take away the vapors or lessen the heat in front of the ranges.

Yet all these things are done in practice and the sufferers are, first, the kitchen help, and second, the employers, who have to put up with constant changes of help owing to the uncomfortable conditions created.

There is one basic principle, and only one, governing the removal of the heavy, grease-laden vapors generated in a kitchen, which, because of their weight, do not readily rise; that principle is that they must be assisted by being

pulled out, and cannot be pushed out. This pulling out cannot be accomplished except by artificial means, no flue, however large, being capable of accomplishing it successfully unless an artificial impetus is furnished.

There are two means of drawing out the kitchen vapors: one a fan and the other heat in the flue. The size of the flue necessary to carry off the vapors is very important,

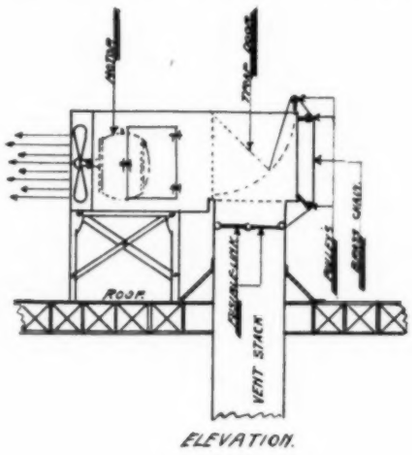


Fig. 2.

and in general practice it will be found that the size necessary is underestimated by architects and even by kitchen equipment designers.

It is important to remove the vapors through the flue directly from the spot at which they are created, and they should never be pulled across the kitchen except in a closed duct. In many cases the exhaust fan is placed on

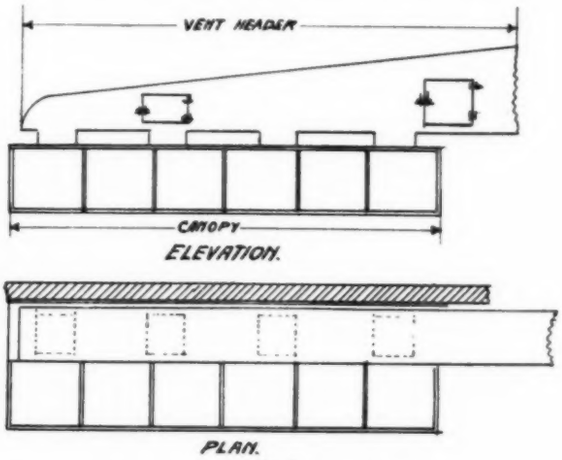


Fig. 3.

the opposite side of the kitchen from the ranges, which results in the heat from the ranges being pulled across the kitchen, superheating the air as it goes, because no canopy and duct have been provided.

In case there is no canopy the heated air and vapors are simply pulled to wherever the exhaust opening is located, heating up the kitchen in passing and leaving a coating of grease on anything the air happens to touch.

The placing of an exhaust fan in the wall of the kitchen results in the vapors being carried to the windows of the floors above the point of exhaust when the wind is in certain directions, or there is no wind; therefore it should always be carried to the roof, the fan being placed in a suitable fan house on the roof.

The simplest and least expensive method of kitchen ventilation is that shown in Fig. 1. The flue from the ranges is run up the center of the vent flue connected with the top of the canopy. The heat generated from the ranges causes a suction draft which carries off the air in the vent flue surrounding it. It is, however, essential that the smoke flue be of the right size to give good draft and especially that the vent flue have the requisite number of square feet of area to take care of the vapors generated from the particular apparatus in use.

Of course this system varies in its pulling capacity according to the temperature and barometric pressure of the outside atmosphere, but if the vent flue is of sufficient capacity it will give as good results as can be obtained without the use of mechanical ventilation. To get the best results the vent duct must go to the roof and be above surrounding buildings.

Whenever any wood or other inflammable material is present the vent duct must be carefully fireproofed because the grease which accumulates in the duct will occasionally take fire.

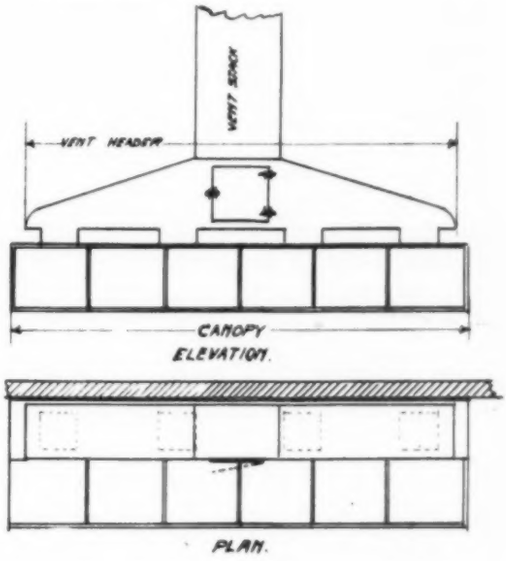


Fig. 4.

The building of vent ducts of wood lined with iron or asbestos is certain to cause a fire in time and must never be considered. The fire which destroyed the Chamber of Commerce Building in Cincinnati a few years ago was caused by a duct of this description.

Fig. 2 shows the best construction of a vent flue operated by an exhaust fan, which is the only absolutely sure method of obtaining the same ventilation under all atmospheric conditions. The exhaust fan must always be placed at the extreme end of the vent duct and the outlet must be in free air and not up against a wall or some similar obstruction, because the air rebounds and causes the fan to run in its own vacuum.

When the fan is located on the roof it should be installed in a fireproof house and the end of the vent pipe should contain a drop door with fusible link to divert flame, in case of fire, to an open, unobstructed passage; this drop door should also break the electric current to stop the fan.

Figs. 3 and 4 show the canopy and vent header con-

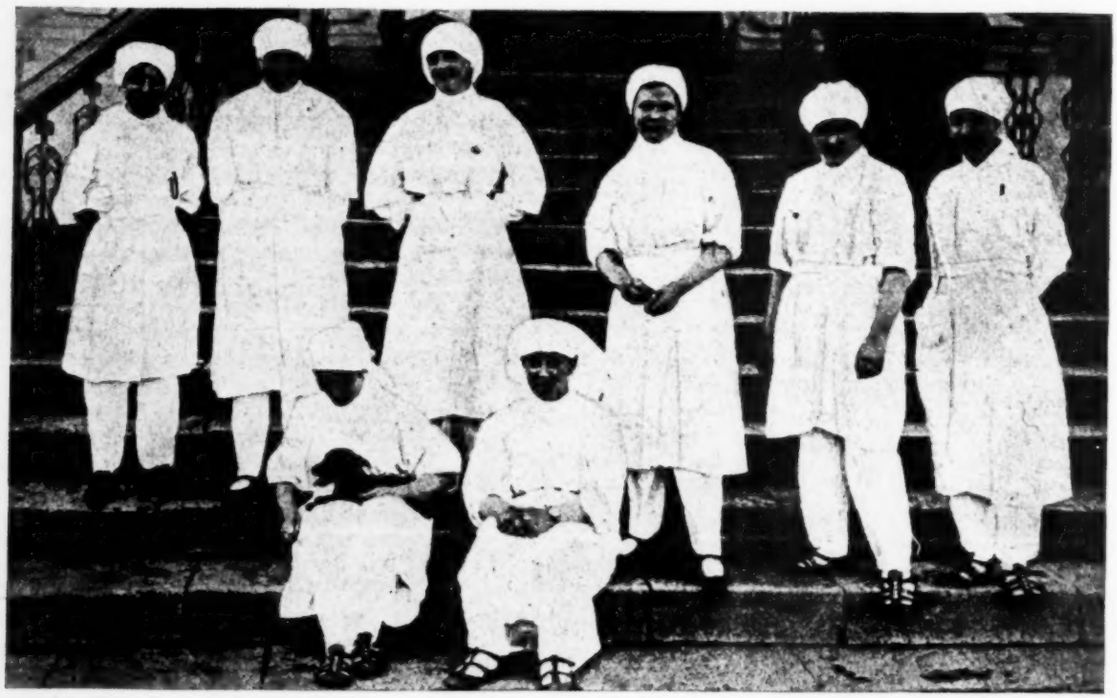
nected to the flue at the end and center respectively; both are applicable to canopies over 10 feet in length.

The vent header plays an important part in the ventilating scheme, because it really acts as a reservoir, taking care of sudden excesses of vapor such as are generated by spilling grease on the range.

The size of flue and exhaust fan necessary for the perfect ventilation of any given kitchen is dependent upon the ceiling height, the number and size of windows and the number and class of fixtures to be ventilated; consequently it is not possible to give any general table of flue sizes. In the series of articles to follow this one, with plans of kitchens suitable to various sized hospitals, the flue sizes will be given so that a general idea can be formed as to what is necessary in the average case.

English Nurses in the Balkans

More than a year ago the astounding information came over the wires that the Serbian army was afflicted with an epidemic of typhus fever in a most virulent form. The disease spread over practically the whole of southern Europe, entered the Austro-Hungarian army, reached out into the Balkans and attacked the Russians, then engaged in their herculean Carpathian campaign. The nations were so busy destroying each other that they had no time to attack even a common enemy, and it was left to the United States to do what could be done. Dr. Richard P. Strong, of Harvard University, and a corps of able assistants were dispatched to Servia and then began one of the most spectacular, heroic and successful fights against one of the deadliest diseases that ever afflicted humanity.



A group of English nurses at Uskub, Serbia, in their new lice-proof uniforms as protection against typhus fever.

How to Treat Ward Floors

To the Editor of THE MODERN HOSPITAL:

I am just finishing up an additional wing to our hospital and am at a loss to know how to finish the floors. They are vertical grain yellow pine. Last year similar floors were shellacked and varnished with Berry Brothers' varnish. These have worn off badly, and the finish in general has not proved durable. Is there anything better that you can suggest? I would appreciate an answer by return mail, as the floors will be ready for treatment next week.

With best wishes for the prosperity of our journal,

FRED W. PHIFER, M. D.,

Wheatland Hospital, Wheatland, Wyo.

I am quite sure your trouble has been that you have laid a heavy coat of shellac on your other floors and there is no binding force to this kind of treatment. Your first course should be a very fine varnish; Berry Brothers' product is all right, and if you will thin the first coat down with turpentine until it is very thin, so that it will run into the pores of the wood, you will not have the trouble you had before. Then your second coat should be the varnish as it comes from the can. If you will use this method I am sure you will have better success this time.

The Rockefeller Foundation and the American Red Cross divided an expenditure of more than $100,000, and today the fight has been won and the disease has been entirely suppressed.

It was known that typhus was communicated by means of the common body louse. Among the many nursing groups sent to Serbia to help in the fight on the disease was a group of English nurses. The above illustration shows them in the costume designed to exclude the infecting louse. Notwithstanding the many precautions taken a number of American physicians and nurses have died of the disease.

While this fight on typhus was being waged by a heroic group of American doctors and nurses, Dr. Harry Plotz, of the laboratory of Mt. Sinai Hospital, New York, working on the microorganism of typhus, succeeded in identifying the organism with that of the so-called Brill's disease, which he found was typhus in a modified, or attenuated form, Dr. Plotz succeeded in making an immunizing vaccine, and now all the workers against typhus in the Balkans have been vaccinated against the disease.

Miss Anna C. Farley, of Chicago, became superintendent of the John Warner Hospital at Clinton, Ill., August 2.

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ILLUSTRATIONS.—Such half-tones and zinc etchings as in the judgment of the Editors are necessary to illustrate articles will be furnished when photographs, drawings, or ink tracings are supplied by the author.

NEWS MATTER.—Our readers are requested to send in items of news, and also marked copies of newspapers containing matters of interest to those engaged in hospital work. We shall be glad to know the name of the sender in every instance.

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NEWS OF THE HOSPITALS AND SANATORIUMS

St. Matthew's Hospital at Fairbanks, Alaska, has been closed.

The McPherson Hospital, McPherson, Kas., is building a $20,000 addition.

An association has been organized at Lake City, Minn., to establish a hospital.

The Union Pacific Railroad is building an emergency hospital at its shops in Omaha.

A hospital is being erected at the State School for Deaf and Blind at St. Augustine, Fla.

Dr. E. J. Post has opened a sanitarium at Colfax and Garfield avenues, Benton Harbor, Mich.

A movement toward the establishment of a public hospital has been started at Marengo, Iowa.

The Irvin Memorial Hospital at Mt. Airy, N. C., has been sold to Dr. Moir Martin, of Stuart, Va.

Dr. Howard Kelly's Sanatorium at 1416-20 Eutaw Place, Baltimore, is being remodeled and enlarged.

Private parties are behind a project to establish a large industrial sanatorium at Albuquerque, N. M.

Bids have been invited by the city of Rock Island, Ill., on the construction of a $25,000 tuberculosis hospital.

Sister Regina, for the last ten years superior at the City Hospital, Mobile, Ala., died at that institution in July.

The construction of an addition to the hospital of the State Soldiers' Home at Fort Dodge, Kas., has been commenced.

The Agricultural and Mechanical College at College Station, Tex., contemplates the erection of a $50,000 hospital building.

The will of the late Jesse A. Perry, of Maldren, Ill., includes a bequest of $50,000 for the erection of a public hospital in Princeton, Ill.

St. Joseph's Hospital and Sanatorium, Silver City, N. M., has been sold by the Sisters of Mercy to the Sisters of St. Joseph, of Indiana.

Dr. Thomas N. Gray, of East Orange, N. J., has been placed in charge of the Newark City Tuberculosis Sanatorium at Verona, N. J.

Headquarters of the United States public service for the investigation of occupational diseases are to be established in Pittsburgh, Pa.

Miss Mina Lee Phillips has been elected superintendent of the Burlington Hospital, Burlington, Iowa, succeeding Miss Margaret Robinson.

The grand prize for hygienic exhibits at the Panama-Pacific Exposition has been awarded to the New York State Hospital Commission.

Dr. Clay Johnson, Fort Worth, Tex., has had plans drawn by Architects Field & Clarkson, of the same city, for a $30,000 private hospital.

Dr. James R. Kingsley, of Sheboygan, Wis., has purchased the Bonnie mansion at Three Rivers, Mich., and will convert it into a hospital.

Improvements soon to be made at the State Hospital for the Insane, Columbia, S. C., will include a new dairy barn to house 150 cows, new power house, kitchen and storeroom buildings, and the remodeling and reequipping

Mercurialized Serum

An Important Advance in the Administration of Mercury for the Treatment of Cerebral and Systemic Syphilis

In cerebral syphilis the spirochetes are located in the cerebrospinal system and are unaffected by the intravenous or other use of the usual antisyphilitics. Dr. C. M. Byrnes, of Johns Hopkins University, has discovered that bichloride of mercury loses its corrosive properties and may be administered intraspinally if dissolved in the proper amount of Normal Serum. Dr. Loyd Thompson has used the same preparation by the intravenous route for the treatment of systemic syphilis.*

Mercurialized Serum Mulford is furnished:

FOR INTRASPINAL USE

No. 1.—In 30 c.c. ampuls containing 1.3 mg. (1-50 gr.) Mercuric Chloride in normal serum and physiologic salt solution, with special sterilized rubber tubing and sterilized intraspinal needle.

No. 2.—In 30 c.c. ampuls containing 2.6 mg. (1-25 gr.) Mercuric Chloride in normal serum and physiologic salt solution, with special sterilized rubber tubing and sterilized intraspinal needle.

No. 3.—Hospital Size Packages, contain ten 30 c.c. ampuls, each containing 1.3 mg. (1-50 gr.) Mercuric Chloride in normal serum and physiologic salt solution.

No. 4.—Hospital Size Packages, contain ten 30 c.c. ampuls, each containing 2.6 mg. (1-25 gr.) Mercuric Chloride in normal serum and physiologic salt solution.

FOR INTRAVENOUS USE

No. 5.—In sterile glass syringe, graduated in fourths, with sterile needle, containing 22 mg. (1-3 gr.) Mercuric Chloride in 8 c.c. normal serum. Each one-fourth graduation of the syringe contains 5.5 mg. (1-12 gr.) Mercuric Chloride and represents the usual dose.

No. 6.—Hospital Size Packages, contain ten graduated sterile glass syringes with sterile needles, each containing 22 mg. (1-3 gr.) Mercuric Chloride in normal serum.

*For further information regarding Mercurialized Serum in the treatment of cerebral and systemic syphilis, see the Journal of the American Medical Association, December 19, 1914, p. 2182, and May 1, 1915, p. 1471; also *The Mulford Digest*, May, 1915.

The Luetin Intradermic Test

In the Mulford Special Intradermic Test Syringe

A Simple and Accurate Method of Diagnosing Tertiary and Latent Syphilis

Luetin is an extract of killed cultures of a number of strains of the Treponema pallidum (Spirocheta pallida) carefully sterilized and placed in sterile glass ampuls or intradermic syringes.

A positive reaction manifests itself in the form of a pustule, papule, or other inflammation at the site of injection.

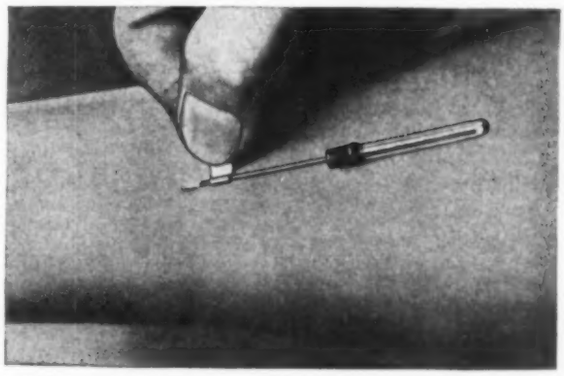
The value of the Luetin test may be summarized as follows:

The Luetin reaction is specific for syphilis.

It occurs most constantly and intensely during the tertiary and latent stages.

It is usually absent, or very mild, in the primary or secondary stages, although in these stages it may become positive after energetic treatment.

In infants it is less marked than in adults with congenital syphilis.



Showing the Mulford Intradermic Syringe and Method of Making Test. The skin is sterilized; holding the needle by the finger rest it is carefully inserted between the layers of the skin. As the intradermic needle is pushed up into the barrel the proper amount of luetin is injected intradermically.

The Luetin Test is furnished:

In packages containing single tests in intradermic syringes.

In packages containing five tests in intradermic syringes.

In ampuls containing sufficient for 50 tests (without syringes) for hospital use.

Working Bulletin on Mercurialized Serum and Luetin Mailed Upon Request

H. K. MULFORD CO., Philadelphia, U. S. A.

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of a white male ward, the total cost to be approximately $120,000.

Dr. M. S. Gibbs has purchased the Universalist church and parsonage at Marshall, Mich., and will remodel the church into a private hospital.

The American Locomotive Company is making preparations for the erection of an emergency hospital at its Brooks plant in Dunkirk, N. Y.

The erection of seven new buildings is included in the program of the State Hospital for the Insane at Jamestown, N. D., for the next eighteen months.

Miss Dora Stacy has resigned the superintendency of the Southwest Hospital, Springfield, Mo. She will be succeeded by a Miss Fleming, of Kansas City.

The Remington Arms and Ammunition Company, Bridgeport, Conn., will shortly begin the erection of a two-story building to be used for hospital purposes.

The Galesburg Hospital, Galesburg, Ill., has a new superintendent in the person of Miss Elizabeth K. Smith, who was formerly in charge on a hospital in Rockford, Ill.

A general hospital with a capacity of twenty-five beds has been opened in connection with the Traverse City State Hospital, Traverse City, Mich. Pay patients will be received.

A stock company has been formed at Wausau, Wis., for the purpose of erecting a $75,000 hospital. E. C. Lempeke, A. N. Peterson and H. G. Tank are among the incorporators.

Capt. W. M. Greeley, a banker and capitalist of Ames, Iowa, has announced that he will build a hospital for Ames within the next year as a memorial to his wife, the late Mary Greeley.

A new and larger home for the Sharon Hospital, Sharon, Conn., will be opened in the near future. Summer residents at Sharon contributed liberally toward the erection of the building.

George H. Marsh, of Van Wert, Ohio, has purchased in that city an old ward school building, which he will present to Van Wert county, remodeled and fully equipped for a county hospital.

The state of Iowa has a new law providing for free treatment at the State University Hospital at Iowa City of crippled children whose parents have not the means to pay for such treatment.

The Stewart Hospital and the Mercy Hospital at Hutchinson, Kas., have been acquired by the Methodist Hospital Association and combined under the name of the Hutchinson Methodist Hospital.

Architect A. Raymond Ellis, of Hartford, Conn., has completed plans for an addition to the Hartford Hospital to cost $125,000. The new building will be devoted to the care of private patients.

Miss Ellen Stewart, superintendent of Clarkson Memorial Hospital at Omaha since 1909, has been granted leave of absence for a year, during which time she will attend Columbia University, New York City.

At a recent meeting of the directors of the Deaconess Hospital at Grafton, N. D., it was decided to erect a two-story and basement addition, 24 by 36 feet, to meet the increasing demands upon the institution.

Dr. E. H. Cohoon, who has been connected with the Rhode Island State Hospital for the Insane for eight years, was recently made administrator of the psychopathic department of the Boston State Hospital.

The Post Graduate Hospital at Oklahoma City, Okla., has been acquired by the state and will become a part of the University Hospital operated in connection with the medical school of the University of Oklahoma.

A contract has been awarded for the erection of a three-story and basement addition to the Grand Forks Deaconess Hospital, Grand Forks, N. D., also for a new power house for this hospital, with space for an up-to-date laundry.

The DeSoto Sanatorium at Jacksonville, Fla., has been acquired by the Sisters of Mercy, whose headquarters are at Emmittsburg, Md. The sanatorium will be remodeled and enlarged for general hospital purposes. The same

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It saves from 200 to 600 per-cent in time and cost of labor

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The Tuberculosis Nurse — Her Functions and Her Qualifications. A handbook for practical workers in the tuberculosis campaign—By Ellen N. La Motte, R. N., graduate of Johns Hopkins Hospital, former nurse-in-chief of the Tuberculosis Division, Health Department of Baltimore. Introduction by Louis Hamman, M. D. **$1.50.**

A Medical Dictionary for Nurses — By Amy Eliz. Pope, **$1.00.** "Unquestionably the best work of its kind that has ever been published."—*British Journal of Nursing.*

Practical Nursing — A Text Book for Nurses. By A. C. Maxwell and A. E. Pope. (Third Edition.) **$2.00.**

A Text-Book of Anatomy and Physiology for Nurses — By A. E. Pope and Thurza A. Pope. **$1.75.**

Essentials of Dietetics in Health and Disease — By A. E. Pope. **$1.00.**

A Text-Book of Materia Medica for Nurses — By L. L. Dock. (Fourth Edition.) Revised and enlarged. **$1.50.**

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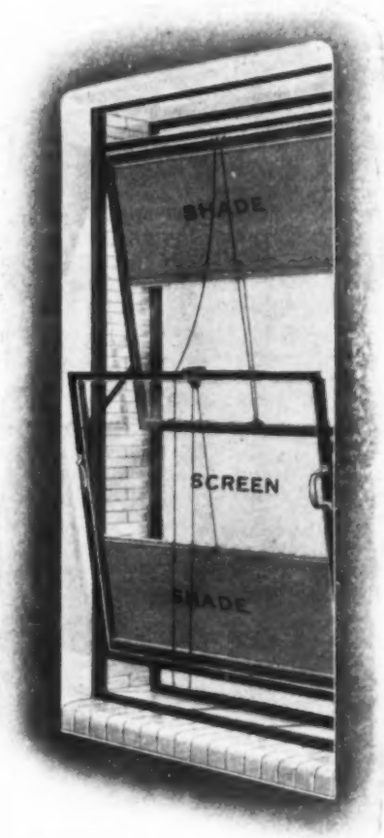
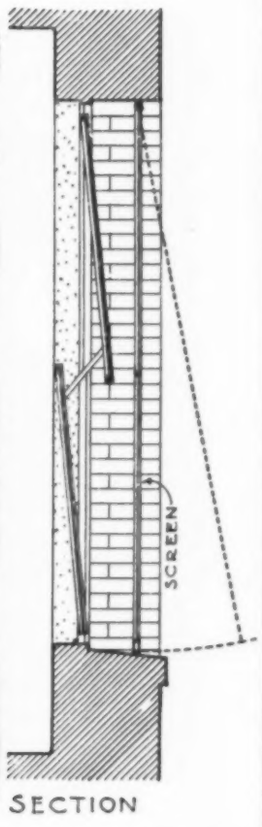


INTERIOR VIEW



SECTION

The Ideal Hospital Window

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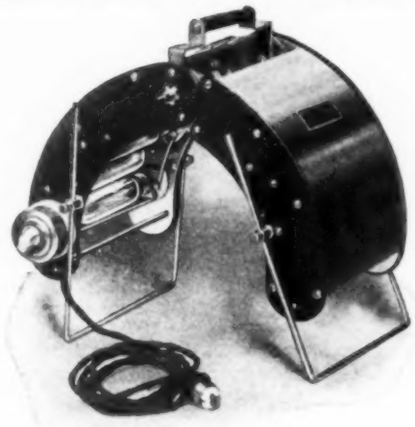
ELECTRIC BAKERS



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EIMER AND AMEND
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order will open a new $300,000 hospital in Pensacola, Fla., this month.

The Sisters of Charity of the Incarnate Word, with headquarters at San Antonio, Tex., have purchased a residence property at Fourth street and Moniteau avenue, Sedalia, Mo., and are converting it into a hospital.

K. A. Rygh has been elected superintendent of the Good Samaritan Hospital at Rugby, N. D. Mr. Rygh is a graduate of St. Olaf's College at Rugby and has done postgraduate work in the University of Minnesota.

Dr. E. G. Newell, for the last two years superintendent of the Oklahoma Hospital for the Insane at Supply, has tendered his resignation to Governor Williams, giving as his reason the desire to resume private practice.

The Bradford Street Hospital, Brooklyn, N. Y., is said to be greatly overcrowded, and a movement toward raising funds for a new and larger building and an increased number of medical men and nurses has been started.

Miss Ida May Hickox writes to have her MODERN HOSPITAL address changed from Los Angeles, Cal., to Shanghai, China, where she goes to take charge of the nurses' training school of the Harvard Medical School Hospital.

A British war hospital in South Africa solved the problem of dealing with would-be nurses who were more willing than competent by placing over the beds of patients placards reading, "Too Sick to Be Nursed Today."

A twelve-day campaign recently conducted for the Wyoming Valley Homeopathic Hospital, of Wilkesbarre, Pa., resulted in the raising of over $50,000. The money will be used to clear the hospital of debt and make some needed improvements.

Fifty thousand dollars were left to the Lowell General Hospital, Lowell, Mass., and an equal sum to the House of Mercy, Pittsfield, Mass., by the late Dr. Fred S. Pearson, a Lusitania victim, of Great Barrington, Mass., and London, England.

Sixty-five employees of the New York City Charities Department, including stenographers, chauffeurs, clerks, telephone operators and janitors, will lose their positions September 1. The places will be filled through civil service examinations.

The laundry, electric light plant and several other buildings of the Western Tennessee Hospital for the Insane at Bolivar were recently destroyed by fire, which is believed to have started from spontaneous combustion in the drying room of the laundry.

A nurses' training school has been opened at the new Parkland Hospital at Dallas, Tex., with Miss Nell Phillips in charge. The Parkland Hospital is a municipal institution, which was opened in the fall of 1913. Nearly two hundred patients are cared for.

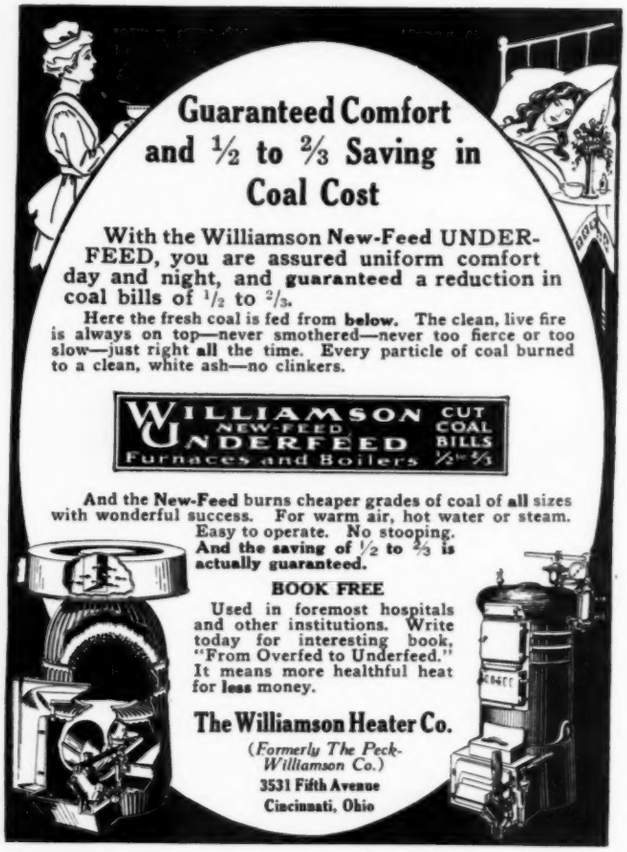
Plans have been perfected by the welfare committee of the Minneapolis Maternity Hospital for a varied course of study to be given evenings for patients. The course will consist of lectures, and the subjects will include English, arithmetic, sewing, domestic science and sex hygiene.

The Shenango Valley Hospital Association, New Castle, Pa., has received from Mrs. George E. Treadwell a gift of a tract of land valued at $10,000 as a site for a nurses' home. The directors of the hospital will endeavor to raise $40,000 for the erection of a suitable building.

The erection of a new building for the State Tuberculosis Sanatorium at Kearney, Neb., to cost $35,000, has been commenced. The structure will be diamond-shaped, the purpose in adopting this form of construction being to provide an abundance of sunshine at all hours of the day.

A company with Dr. Edward M. Halloran at its head has been organized at St. Paul, Minn., to build a modern fireproof hospital for the treatment of chronic diseases. The capital stock is $50,000. Dr. Halloran is now conducting a small institution at 142 Ramsey street, St. Paul.

The International Jury of the Panama-Pacific Exposition has awarded a gold medal to Meinecke & Company, New York, for their improved hospital and sick-room appliances. In addition, the jury has also awarded three silver medals to Meinecke & Co.'s collaborators who assisted in making these improvements. A number of Meinecke &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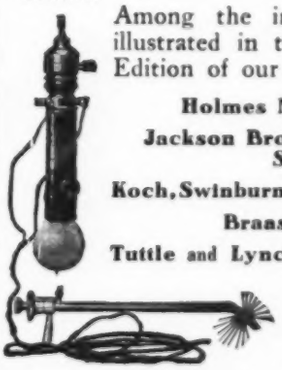

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Dr. L. R. Webb, of Bethany, Mo., will soon begin the erection of a private hospital at Bethany. Accommodations for ten patients will be provided at the beginning, but it is the intention of Dr. Webb to increase the capacity of the institution within a year.

A $150,000 fireproof addition to the maternity department of the University of Pennsylvania Hospital, Philadelphia, is in course of construction. The plans were drawn by Brockie & Hastings, of Philadelphia. The design is of the Elizabethan period. Forty-six patients will be accommodated.

The Greenfield Sanatorium at Wauwatosa, Wis., has employed Miss Rachel Horner, a graduate of the Milwaukee-Downer College, to make a special study of the problem of providing suitable employment for convalescent tuberculosis patients and for those who have been discharged from the institution as arrested cases or cures.

It is reported that Dr. Robert B. Lamb, formerly superintendent of the Matteawan (N. Y.) State Hospital and now a practicing physician of Lansingburg, N. Y., has purchased a part of the Howland estate at Beacon, N. Y., including the historic residence of the late General Joseph Howland, which Dr. Lamb will open as a private sanitarium.

Miss Elsie Douglas, a graduate of the training school of the Kansas City (Mo.) General Hospital, is to be the superintendent of a hospital soon to be established at Iola, Kas. Drs. P. S. Mitchell, J. Reid, F. L. B. Leavell, R. O. Christian and W. R. Heylmun, of Iola, and Dr. L. D. Johnson, of Chanute, Kas., will be connected with the institution.

The hospitals of Baltimore are asking the board of city charities for an increase from 62½ cents to $1.00 a day in the allowance for the care of the city's indigent patients. It is pointed out by the hospitals that $1.13 a day is the lowest possible cost of maintaining charity patients, and that in the larger institutions the cost runs as high as $1.50 to $1.75 a day.

What a local newspaper asserts will be the most complete factory emergency hospital in the United States is soon to be opened at Bridgeport, Conn., by the Bridgeport Arms Company. A feature of the hospital will be the establishment of first-aid stations at various points throughout the factory, where injured employees will receive instant attention.

The new Iroquois Hospital at Watseka, Ill., for the erection and maintenance of which Mrs. Anna Donovan donated $50,000, has been completed. The building, exclusive of equipment, cost $20,000. It is a three-story and basement brick structure, 80 by 41 feet, containing 14 single rooms, three four-bed wards, an obstetrical ward, operating room, laundry, dining rooms, kitchens, parlor, etc.

The old building of the Flint Medical College at New Orleans is being remodeled and modernized to provide larger and better quarters for the Sarah Goodridge Hospital, which is operated in connection with the college. The improvements will give the hospital a capacity of over 50 beds, making it the largest institution of the kind in that part of the country conducted for negroes exclusively.

The announcement that George Eastman, president of the Eastman Kodak Company, will erect a free dental dispensary for the city of Rochester at a cost of $300,000, was made at a recent meeting of the Rochester Dental Society, which for years has maintained free dental dispensaries in the public schools. This gift will raise the total of Mr. Eastman's benefactions to institutions in Rochester to $3,500,000.

A special board, to have control of the nursing staffs of all the municipal institutions of St. Louis and of the city visiting nurses, has been appointed by Hospital Commissioner Shutt. Nurses will be appointed by the board, with the approval of the hospital commissioner, from eligible lists submitted by the city efficiency board. The new nursing board is composed of three women and four men, including one physician. The term of one member will

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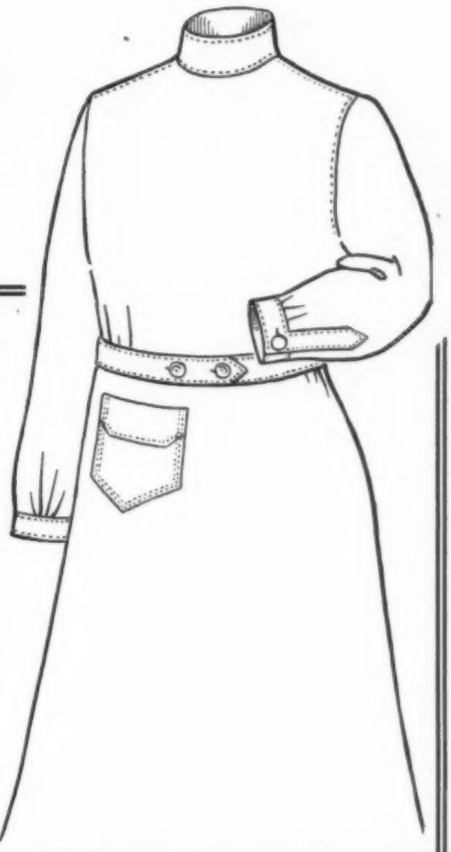

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INDIVIDUAL CASSEROLETTE WITH COVER

Serve foods hot at the bedside

INDIVIDUALLY cooked dishes not only retain their heat as ordinary "helpings" never can, but they retain the greatest possible amount of juices and aroma. Something is lost every time food is transferred from one receptacle to another. Individual dishes, moreover, are better cooked.

HALL'S VITRIFIED COOKING CHINA is something new in cooking and serving ware. It is almost impossible to nick it even with great effort. And it cannot craze. The importance of this feature from a sanitary standpoint is recognized by most hospital people, but no china manufacturer either in this country or Europe has succeeded in producing such a china before.

We make this china for every purpose. Write for catalogue.

THE HALL CHINA COMPANY

EAST LIVERPOOL, OHIO

expire each year, and a successor will be appointed for seven years. The board was authorized by a city ordinance.

At the annual meeting of the Kentucky Association of Graduate Nurses held at Owensboro in July, the following officers were elected: Miss Joe O'Connor, of Louisville, president; Miss Mae Hicks, of Lexington, first vice-president; Miss Martha Gates, of Louisville, second vice-president; Miss Grace James, of Louisville, recording secretary; Miss Ada Kirchbaum, of Louisville, corresponding secretary, and Miss Matilda Stienber, of Louisville, treasurer.

Minnesota maintains sixteen state institutions, valued at $15,008,967.92. An average of 9,580 inmates are cared for. The average number of employees is 1,542; and the average wage of employees is $562.47 per year. The net cost of maintenance and operation per year is $1,675,-119.84; net cost per inmate, $174.63. Farm and garden property to the value of $235,785.81 is owned by the state in connection with its institutions. The average cost of provisions per capita for all of the Minnesota state institutions during 1914 was $51.42, an increase of $2.19 over the previous year. Clothing cost $11.18 per capita.

The American Red Cross has made arrangements for the establishment of a baby hospital in Serbia. Dr. Louise Taylor Jones, who until recently was in charge of a baby hospital in Rock Creek Park, Washington, D. C., and Dr. Catharine H. Travis, of New Britain, Conn., sailed from New York on the steamer V. Constantinos to take up the work. Dr. Jones will return to Washington in October, leaving Dr. Travis in charge of the hospital, which is to be known as the Mabel Grouitch Baby Hospital, in recognition of the Red Cross activities of Madame Slavko Grouitch, wife of the undersecretary of foreign affairs of Serbia, who formerly was Miss Mabel Dunlop, of West Virginia.

The superintendents of the several Illinois state hospitals for the insane have been ordered by the state board of administration to attend a course of instruction at the state psychopathic institute at Kankakee. Arrangements for the course have been made by the state alienist, Dr. George A. Zeller. The lectures and demonstrations will be given by Dr. H. Douglas Singer. Since the institute was established it has been the custom of the board to require the attendance of all the physicians in the various state hospitals for instruction at stated periods. Recently the opinion has prevailed that a superintendent should know as much about the scientific care of the insane as the physicians under him, and this feeling led to the order directing the superintendents to attend the school.

A new hospital ship given to St. John's Guild, New York City, by Mrs. Helen C. Juilliard, wife of August D. Juilliard, the banker, at a cost of $100,000, will be put in commission next year. The ship is now being built at the shipyards of the American Car and Foundry Company at Wilmington, Del. It will be in the form of a barge, 215 feet in length and 43 feet beam. Five decks will be constructed, and there will be beds and other accommodations for 400 patients. Electric lights, elevators and many baths will be provided. Although the primary purpose of the new floating hospital will be to take poor mothers and babies on summer cruises, a heating system will be installed, so that the hospital can be kept in service during the winter.

Cost of Washing at Five London General Hospitals with Laundries

Hospital.	Occupied Beds.	Approximate Percentage of Out-Patient Expenditure of the Whole Expenditure.	Average Weekly Number of Pieces.	Cost per Occupied Bed. £ s. d.
Guy's	527	8 percent	24,871	7 13 8
London	795	14 percent	53,735	6 19 11
Middlesex	337	3½ percent	16,006	8 5 10
Royal Free ...	143	12 percent	6,308	7 1 11
Seamen's (Greenwich).	222	8 percent	8,717	4 12 1

—The Hospital, London.

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